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Oil, Paint and Drug Reporter

The Market Authority Since 1871 in Chemicals—Dyestuffs—Drugs—Paints—Oils—Fertilizers

VOLUME 105. No. 12 THURSDAY, MARCH 20, 1924 100 William St., New York

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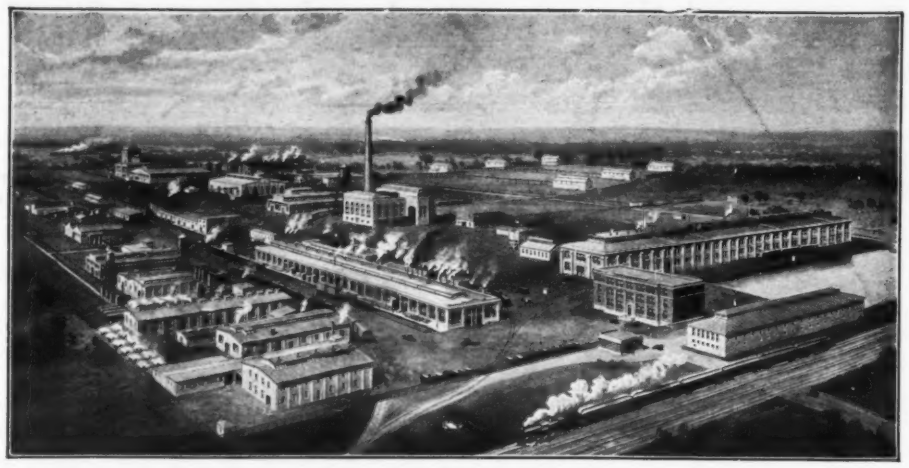

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Oil, Paint and Drug Reporter

The Market Authority Since 1871 in
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VOLUME 105. No. 12 THURSDAY, MARCH 20, 1924 100 William St., New York

Looking at 1923 Events From Washington

Activities and Developments in Federal Administrative Circles, in International Relationships, in Courts, and in Commissions, Which Made the Year a Notable Period in the Chronicles of the Chemical, Drug, Paint, Oil and Related Industries

Of peculiar interest to the coal-tar dye and other chemical industries during 1923 and since has been the occupation of the Ruhr district and other portions of Germany by joint action of France and Belgium. The Ruhr was the principal source of coal and coal tar for use as raw material by the German dye and chemical industries. The occupation resulted in a temporary closing down of the coal mining and coking and other industries of the Ruhr, which was reflected in a shortage of material for other industries. The policy of the German government in "passive resistance" to the occupation and the laying off of workmen in the occupied zone helped bring about a general suspension of industry. Among the results were the reduction of German production and decrease of German exports, which were reflected in the chemical trades throughout the world. The American coal-tar industry benefited from curtailment of German operations.

The German government stopped deliveries of reparation dyes and of other reparations in kind. The French retaliated by occupying German plants and seizing stocks of dyes and chemicals which they divided with their allies to some extent. Ultimately after many months of occupation the German dye cartel entered into an agreement with the French to abide by the edicts of the occupational authorities and resume production and deliveries. Similar agreements were made between the French authorities and other Ruhr industries. Meanwhile, German products began reaching world markets through Switzerland and other countries, an agreement between French and German dye interests was brought about, and there was talk of combinations between German dye interests on one hand and British and American interests on the other hand.

Regulations were issued under the tariff act of 1922 covering the importation of dyes into the United States. Standardization of dye strengths was brought about under edict of the Customs Bureau of the Treasury Department, and lists of competitive and non-competitive coal-tar dyes and other products were issued after consultation with all parties interested. Upon their classification as competitive or non-competitive with American products depends the application of American valuation or foreign valuation to dye imports. Over 100 dye strength standards have been promulgated by the customs bureau.

These standards and the competitive and non-competitive lists have not been approved as a whole either by dye importers or dye manufacturers, but they are regarded by officials as generally satisfactory. Importers are seeking a revision of the general dye customs regulations relating to the question of hearings, the collection of information for guidance of the appraising officers, and other phases of the situation.

Dye Patents Decision

One of the most important domestic developments of 1923 was the decision of Judge Morris of the Federal District Court at Wilmington, Del., in the suit of the government against the Chemical Foundation, which sustained the sale of former German patents, seized by the Alien Property Custodian, to the Chemical Foundation. The decision was regarded as a far reaching victory and of great value as a precedent in dealing with other technical and chemical cases before the courts. It meant that the American chemical industry would not be disturbed in the use of many patented processes and in the manufacture of many patented products now being enjoyed under the former German patents licensed to American manufacturers. This case has been appealed by the government to the Federal Circuit Court of Appeals, whence appeal will doubtless be taken to the United States Supreme Court.

Under the Winslow bill the Alien Property Custodian has been returning to their former owners enemy properties seized during the war period up to a value of $10,000 in each instance. These properties authorized to be returned included some former German patents not assigned to the army and navy and not sold to the Chemical Foundation.

There were interesting developments in the arsenic situation during the year. While there was some shortage in the supply of calcium arsenate, the situation improved, largely owing to the co-operation of interested parties and the assistance of various branches of the Federal government. The Geological Survey, and the Department of Agriculture made studies of arsenic and arsenate, and at least three reports were submitted to Congress on the subject during the year. There were conferences in New York among producers, consumers and others, and government efforts were coordinated.

About the close of the year the Geological Survey reported there would be no lack of production sufficient to supply the demand in 1924, provided the price situation justified capacity operation. Legislation has been progressing toward special investigation of sources of arsenic, government purchase of calcium arsenate and its distribution at cost to farmers, and increased experimental and investigatory work in connection with arsenare on the part of the Agricuitural Department.

The Japanese earthquake and fire disaster caused reaction in this and other countries of special interest to the chemical trades. Reported destruction of large stocks of menthol and camphor led to considerable speculation and increase of prices, while on the other hand, the disaster caused an increased demand in Japan for certain drugs and chemicals. Quantities of these were contributed by the United States army and navy or bought by the American Red Cross for relief purposes in Japan. The situation led to a conference at the Department of Commerce under the auspices of Assistant Secretary Drake, to which representatives of the American chemical, fertilizer, drug, glass, paint and other industries were invited. The outcome of the conference was official encouragement to American industries, not so organized, to build up export trade combinations so as to take advantage of the opportunities offered in Japan for assisting in reconstruction and the furnishing of materials therefor.

Government Co-operation

The Department of Commerce carried on with enthusiasm in 1923 under the inspiration of Secretary Herbert Hoover. The chemical division headed by C. C. Concannon expanded largely and plans were laid, and their carrying out begun, for the collection of much additional information and its prompt distribution in the chemical and related trades and industries. Mr. Concannon himself made a trip to Europe, during which he visited England, Belgium, France and Germany, getting in touch with the situation, and Dr. F. E. Breithut was appointed trade commissioner to study the chemical situation abroad. Publication of a series of special reports from him on the coal-tar industrial and market situations has been begun, which will ultimately cover the leading countries of western and central Europe.

Another thing the department has done of special value to the coal-tar industries of America is, in co-operation with the customs service and the Tariff Commission, to publish monthly reports of imports of dyes and other coal-tar products. This enables domestic manufacturers to keep in touch with developments in foreign trade.

Under a special appropriation for investigating foreign sources of raw materials upon which America is dependent, Harry Curtis was selected by Secretary Hoover to conduct an investigation of the nitrate situation. Studies have been made in Chile and in Europe and a report by Dr. H. Foster Bain, director of the Bureau of Mines, on the Chilean nitrate industry was published. Dr. Bain's report, contrasted with that of Charles Brand of the Department of Agriculture, gave rise to a controversy as to whether the Chilean nitrate industry is or is not controlled by British interests. Further reports on nitrate fixation in Europe on American production and consumption were planned. Under the same authority of law the Department of Commerce arranged for a report on quebracho, which is controlled by British interests in Argentina, and investigations were suggested into the camphor, menthol, iodine, potash, quinine and various drug situations controlled abroad.

Alcoholic Advisory Committee

From the trade standpoint the most important development in the prohibition situation during the year probably was the creation of an Alcohol Trades Advisory Committee which cooperated with the department in the revision of internal revenue regulations 60, relating to alcohol for industrial and medicinal uses. The committee was instrumental in having postponed indefinitely a revision of regulations 61 relating to denatured alcohol, which proposed to place prohibition directors as well as internal revenue collectors over the denatured alcohol administration. The prohibition regulation limiting the number of liquor prescriptions that may be given by a physician was over-ruled by courts of New York and Montana, and an opinion was obtained from the Attorney General of the United States which was regarded as not unlikely to loosen up on restrictions against importation of wines for medicinal purposes.

Developments in the Muscle Shoals situation during the year included the submission of several new offers for the Shoals properties in competition with Henry Ford's offer. The new bidders included the Union Carbide Company, Elon H. Hooker and associates, and Southern water power interests. The situation was somewhat complicated by the sale of the Gorgas steam power plant by Secretary of War Weeks to the Alabama Power Company, but supporters of Ford's plan proposed to meet that change by authorizing the construction of a new steam plant which would be turned over to Ford with the nitrate plants and other properties if the offer of the Detroit automobile manufacturer were accepted.

Naval Oil Policy Disputed

In the petroleum world the scandal that developed toward the close of the year in investigation of the leasing of the naval oil reserve lands attracted a great deal of attention and eventually led to action on the part of the government looking toward the cancellation of the leases and the recovery of the lands.

The Post Office Department, the Department of Justice, and the Federal Trade Commission during the year were quite active along the line of issuing fraud orders, prosecuting alleged frauds, and other action against alleged blue sky operators, respectively. The oil investigation of Senator LaFollette resulted in plans for legislation to regulate the oil industry, the operation of pipelines, and so on, which will develop more fully later.

In foreign fields, the controversy between the United States and foreign governments over the administration of former German and Turkish territories taken over under mandate of the League of Nations, has resulted in recognition, nominal, at least, by allied governments of the American principle of the open door and equality of opportunity for American oil interests in the mandated regions, which has been or is being embodied in a series of treaties.

The controversy between the United States and Mexico as to the application of article 27 of the Mexican constitution of 1917, and the consequent status of American oil rights in Mexico attained to a basis of settlement at a conference between commissioners representing the two governments that was held at Mexico City in the summer of 1923. Much of the basis of settlement was embodied in official action by the Obregon government and in two claims conventions, ratified by the Senates of both governments, under which American claims for damages, loss, confiscation, and so on can be laid before joint tribunals for adjustment.

Narcotic Purposes Harmonized

The subject of narcotics came before Congress, the League of Nations and the Pan-American conference during the year, in each instance with a view to better enforcement of The Hague convention. Passage by Congress of the Porter resolution in March, 1923, requesting the President to urge the countries producing raw narcotic materials to curtail such production to total amounts sufficient only to satisfy the medicinal and scientific requirements of the world, was followed by American delegations headed by Representative Porter twice visiting Geneva to attend meetings on narcotics under the auspices of the league.

The American principle was finally adopted over there, and the league decided to call two international conferences, to be held in Geneva in November, 1924, to deal with gradual curtailment of the smoking and eating opium evils in the Orient, and with the curtailment of production of crude narcotic materials and of the finished narcotic drugs to amounts sufficient only for legitimate needs along the lines above indicated. The Pan American conference at Valparaiso, at the instance of the United States, adopted a resolution for enforcement of The Hague convention.

At the close of the year plans were well under way for American participation in the November conferences at Geneva, with the prospect that Mr. Porter would again head the American delegation, and meanwhile a committee of American experts was going to Geneva to co-operate with experts of other countries in preparing plans for the conferences, and Mr. Porter turned his attention more immediately to legislation to prohibit the importation of opium to be used in the manufacture of heroin.

Regulatory Administrative Work

The Department of Agriculture during the year performed its customary functions of enforcing the food and drugs, insecticide and other regulatory acts, besides carrying on a vast amount of work in experimental and investigatory lines. One new line of its work was administration of the naval stores act of 1923, under which regulation of the labeling of naval stores in interstate commerce was undertaken, with the prospect of standards and grades of turpentine, to be

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Looking at 1923 Events From Washington

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established, as rosin samples were established some time ago.

Regulations were also issued under the grain futures act, which authorized the Secretary of Agriculture to license grain exchanges and boards of trade. Flax trading came under that law, as well as trading in other grains.

Tariff Investigations

Progress was made by the Tariff Commission in administering the flexible provisions of the tariff act of 1922. A dozen investigations in chemical lines under the act were undertaken as a result of applications received by the commission, as follows:—Barbital, barium dioxide, casein, cresylic acid, linseed oil, logwood extract, oxalic acid, phenol, potassium chlorate, rare sugars and amino acids, sodium nitrite and synthetic phenolic resins. The requested changes in duty were for increases in eight cases and for decreases in an equal number of instances, both increases and decreases being requested for certain articles.

The commission sent its chemical experts and accountants into a number of European countries and into Argentina and the West Indies, as well as into various parts of the United States, to gather data on the cost of production of the commodities involved in the several investigations, and other economic factors affecting the question of foreign trade and tariff protection. Questionnaires were sent out and many data were gathered in that way. The commission has held hearings in most of these cases and summaries of information were prepared and submitted to the commission for its guidance in preparing reports to the President, but no reports in chemical cases were submitted to the chief executive during the year.

The sodium nitrite case led to a controversy as to the power of the commission to hold confidential certain so-called "trade secrets" of industries concerned in the various investigations. This matter was carried into the District of Columbia courts where the Norwegian Nitrogen Products Company, New York, sought to force the commission to give it all the facts in possession of the commission as to production costs and the like of the American Nitrogen Products Company, Seattle, Wash.

Preliminary steps were taken by the commission looking to the investigation of vegetable oils, fish oils and animal oils and fats used by the soap, varnish and other industries of America, which was ordered early in 1924 and promised to be one of the most interesting cases in the history of the commission.

Under other schedules than the chemical schedule, the commission also conducted investigations of mirror plates, cast polished plate glass, paint brush handles, magnesite and magnesite brick, sugar, and wheat products, which progressed, as did the chemical investigations. The commission's report on wheat has gone to the President, and he has named higher rates.

The commission, besides its duties under the flexible tariff provisions, carried on a vast amount of work along the line of studying commodities mentioned in the tariff act, making the annual census of coal-tar dyes and other products, publishing bulletins, reports, and so on.

Competitive Practices Probed

Besides handling a number of blue sky cases, as indicated above, the Federal Trade Commission issued a number of complaints and orders directed against resale price maintenance, misbranding, and unfair competition in various forms. The commission sent reports to Congress on calcium arsenate and on fertilizer, and continued to keep in touch with the situation in those and other industries. A report was issued on the alleged Wyoming petroleum monopoly, in which legislation was suggested to "effect abolition of the extensive community of interest among Standard Oil companies which resulted from the defective requirements of the original decree dissolving the Standard Oil monopoly."

The Supreme Court overruled the Federal Trade Commission in the gasoline tank pump cases, in which the commission charged that unfair methods of competition were practiced by the big oil companies in furnishing tanks and pumps to dealers at nominal or no cost. The court refused to take up the controversy between the commission and the Mennen Company, which left standing the decision of the lower courts to the effect that the Clayton act does not render discrimination in price by a manufacturer unlawful, although its effect is to lessen competition between purchasers, but only if the effect be to lessen competition between a seller and his competitors, and that discrimination in price betwen purchasers in the absence of ability or tendency to create a monopoly is not in violation of the trade commission act if the discrimination be between wholesalers and retailers, the latter including co-operative distributors engaged in functioning the same as old line distributors and performing identical services.

The Federal Trade Commission members engaged in promulgating some constructive ideas as to trade associations, their activities, relations to the government, and so on, as did the Department of Commerce. However, Secretary Hoover's plans that had been in process of development for some time, for co-operation between the department and industry in the matter of gathering and distribution of trade association statistics, were threatened to some extent by an opinion from Attorney-General Daugherty that trade associations might gather and distribute statistics, but should not confine such distribution to their own members.

The sale of the Old Hickory powder plant at Nashville, Tenn., was made the subject of grand jury indictment and civil proceedings on the part of the government against the Nashville Industrial Corporation, E. M. Davis, of the Davis Chemical Company; former Director of Sales Morse, of the War Department, and others, which were still pending under charges of conspiracy, fraud, and so on, in connection with the sale of the plant to the Nashville concern.

Car Assignment Upheld

The Interstate Commerce Commission performed its many duties, among them being a decision in the multiple tank car case, which was in favor of the contention of the Mathieson Alkali Works, in substance that such cars were entitled to treatment on an equality with large single-tank cars. The commission stood by its guns in the assigned car use, despite the protests of the Pittsburgh Plate Glass Company and various other industrial concerns against the commission's decision which was to the effect that in times of car shortage, which the commission may proclaim, privately owned freight cars of suitable types shall be distributed among the carriers for use in hauling necessary freight, regardless of the wishes of the owners. The commission's order to this effect becomes effective April 1 unless postponed.

In the Department of the Interior activity in administration of the leasing act continued. The Bureau of Mines, the Geological Survey, the Indian Service and other branches of the service carried on. Helium work by the Bureau of Mines was of special interest, also continuance of shale oil work in the West, and studies in various oil fields throughout the country. The Geological Survey carried on field work in Alaska, including the great new naval oil reserve created by the late President Harding, which has an area of 35,000 square miles.

In connection with the Department of Labor one of the interesting developments during the year was the controversy between the government employes compensation commission and the controller-general of the Budget Bureau. The commission held that certain government employes who contracted so-called "occupational diseases," such as lead poisoning, TNT poisoning, tuberculosis, and the like, in the line of their work were entitled to compensation, as are persons physically injured while in active government duty. The controller-general thought otherwise. The matter was carried by the commission to President Harding, who sided with the commission. The commission accordingly made payments to sufferers from occupational diseases. The controller-general thereupon declined to approve the accounts of the commission's disbursing officer. The commission then appealed to President Coolidge, who suggested that legislation be sought clearing up the situation.

Much Trade Grist in Hopper of Congress

The sixty-eighth Congress, after nine months of legislative recess, opened with the prospect that its sessions might not be marked by a great deal of important constructive legislation, owing to the small party majority and the diversity of factions, groups and blocs among its members. This Congress also has been marked by the continuation and development of the most interesting congressional investigation in recent years, in which the Senate Public Lands Committee has brought to light many interesting facts and figures with relation to the leasing of naval petroleum reserve lands in Wyoming and California to Sinclair and Doheny interests. The political consequences of these disclosures have already been disconcerting and no doubt will be far reaching.

Tax Reduction

In the line of constructive legislation tax reduction is the most interesting problem before Congress, though the difficulty of reconciling the views of opposing groups may hold up the consummation of this movement for some time. While the big fight in this connection is over surtax rates on large incomes, the question of reducing the alcohol tax also has been the subject of controversy. Though the House Committee on Ways and Means has decided against cutting this tax from $2.20 per gallon to the pre-war rate of $1.10 per gallon, indications are that the fight is not yet over. On the other hand, attempt is being made to impose one new tax in the form of a levy of 2 cents per gallon on gasoline sold in the District of Columbia—this is in lieu of certain local levies. Repeal of certain other taxes is being attempted in both houses of Congress, and a bill has been introduced by Senator McKellar of Tennessee to reduce the tax on oleomargarine to 1 cent per pound. Another bill, by Representative Keller of Minnesota, which would impose a tax of 1 per cent. per year upon land holdings over $10,000 in value, is also of interest.

Tariff Matters

Tariff legislation does not seem at all likely, but that fact has not deterred introduction of numerous bills looking toward such revision. Among the most interesting measures along this line are those of Senator Ladd of North Dakota and Representative Young of the same State, which would increase the duty on flaxseed to 60 cents per bushel and the duty on linseed oil to 4.95 cents per pound. These measures are regarded as a counter-move in behalf of flaxseed crushers who are fighting against the reduction of duty on linseed oil that has been petitioned for by the Bureau of Raw Materials for Vegetable Oils and Fats Industries.

In this connection and in connection with a bill by Senator Walsh of Massachusetts to reduce the duties on sugars and syrups, it is of interest to note a resolution pending at the House end of the Capitol to investigate the Tariff Commission with special reference to the interest of the wife of Commissioner Glassie in the sugar industry, which is being studied by the commission under a complaint for reduction of duty on sugar.

Agricultural Chemicals

The placing of calcium arsenate, ammonium sulphate and various other commodities on the free list of the tariff has been proposed in a number of bills introduced by members of both houses. Cheap fertilizers for the farmers and the disposition of Muscle Shoals so that the project can be operated for production of power and nitrates for use in peace and war were among the recommendations in the first message of President Coolidge to Congress. Possibilities in the former direction are indicated in bills of Senator Harris of Georgia and others to create a $10,000,000 revolving fund that may be used by the President to buy sodium nitrate, as well as calcium arsenate, and sell them at cost to the farmers with a view of stimulating crop production; also in bills of Senator Sheppard and others from Texas to provide $500,000 a year for five years for the geological survey to explore and determine the location and extent of potash deposits that have been incidentally discovered in well drilling in Texas. Muscle Shoals is still noticeably with Congress. To continue the study of nitrogen and the investigation of important chemical and other raw materials upon which the United States depends upon foreign sources of production, the budget carries an item of $125,000 for the fiscal year 1925.

Oil Pollution and Probes

Oil pollution legislation, which failed of enactment in the last Congress, has got off to a flying start in the Sixty-eighth Congress. With this problem unsolved Congress is being asked to authorize the shipping board to spend $25,000,000 a year to convert war-built ships into Diesel engine-propelled craft so that Uncle Sam may be better able to compete with the merchant marine of other nations. The House committee on merchant marine has given consideration to this matter.

The era of oil investigations began in the last Congress when Senator La Follette conducted a long inquiry into gasoline prices and other phases of the oil industry. That was followed by a report submitted to the Senate in the closing hours of the session, March 4, 1923, in which a number of measures for regulation of the oil industry were suggested. Mr. LaFollette announced his intention to embody these into one or more bills for consideration by appropriate committees of the Senate and in that connection he contemplated another series of hearings in which later developments in oil prices and the like would be brought up to date.

Legislation pertaining to oil and gas is proposed in a large number of bills. Among these are measures for reciprocal granting of oil rights to nationals of foreign nations which permit Americans in the oil business under their jurisdictions; for conservation, development and utilization of helium resources; granting 20 per cent of royalties from naval petroleum reserve lands to States in which they are situated; to authorize the construction of an experimental oil shale refining plant in Utah; to prevent waste in the oil region of Arkansas; to repeal the act authorizing the Secretary of the Interior to adjust the claims of claimants to oil lands south of the medial line of the main channel of Red River; and various measures relating to Indian oil lands.

Prohibition Proposals

Prohibition is to the front again as always, apparently, various measures being proposed in Congress. The most important of these, perhaps, is the Cramton bill which would provide for a separate prohibition bureau under the Secretary of the Treasury. This measure is opposed by drug and related industries, which succeeded in defeating the Wood-Ernst bill in the last Congress, that would have created an independent prohibition bureau directly under the President.

Other measures proposed relating to prohibition would transfer prohibition enforcement to the Department of Justice; authorize so-called "light" wines and beer; provide for local option; place prohibiting employes under the civil service; remove restrictions on physicians in prescribing liquors for medicinal purposes; increase the legal alcoholic limit in beverages from ½ to 3 per cent; prohibit liquor in private possession; make it unlawful to counterfeit prohibition permits, etc.; authorize the use of the army and navy to catch liquor smugglers; appropriate $10,000,000 to $20,000,000 for additional employes, additional coast guard ships, and other steps to endeavor to enforce prohibition.

The House Committee on Agriculture has already reported favorably the "slack package" bill which would prohibit the use of deceptive containers for food, drugs, flavoring extracts and the like. Other measures along the same general line of government regulation, traffic control, etc., would regulate interstate traffic in sutures and surgical ligature material; prohibit adulterated or deleterious butter; regulate traffic in clinical thermometers; prohibit interstate commerce and importation of horsehair shaving brushes as a safeguard against anthrax; authorize the Secretary of Agriculture to establish standards of food.

The Senate has passed a bill to permit the mailing of poisons for disinfecting, germicide and insecticide purposes. Other measures proposed provide "for the proper labeling of poison containers"; authorize the Secretary of Agriculture to issue licenses for the preparation for sale and transportation of viruses, serums, toxins, and analagous products for use in the treatment of domestic animals; for preventing false marking of biologics, and publication of false claims as to their effects; and appropriating $25,000 each for enforcement of the virus act of 1902, and for the purchase and free distribution of antirabic virus.

Three bills of special interest to the paint and naval stores trades are one by Senator Ladd, to prevent manufacture, sale and interstate commerce in adulterated, mislabeled, or misbranded linseed oil, turpentine or paint; one by Representative Oswell, to authorize co-operative associations of producers of turpentine and rosin; and one by Senator Fletcher, to authorize the purchase of lands in Florida for an experimental and demonstration forest for the production of naval stores, at a cost of $200,000.

Products of Fields and Forests

The President has recommended a group of measures for the relief of agriculture, especially in the wheat-growing sections of the Northwest. They include extension of the life of the war finance corporation to grant loans, extension of credit facilities to the farmers, and other steps, some of which will, no doubt, be taken by Congress. Related to the subject of surplus crops in this country, relief of farmers, and so on, are bills that would authorize credits for shipment of grain, fats and oils to Germany to help the reported starving there. The amounts for this purpose range from $20,000,000 to $1,000,000,000, as suggested.

Bills recommended by the cotton bloc of Southern Members of Con-

gress and approved by the departments have passed the Senate providing for simultaneous publication at the Department of Agriculture of cotton crop estimates and cotton ginning reports semi-monthly in the summer and fall. Daily market reports on cottonseed are also sought by the cotton bloc, which is likewise active in efforts to get reduction of freight rates, ocean and rail, on fertilizer and fertilizer ingredients.

Bills for relief of farmers who obtained government loans to plant crops of flaxseed and grain several years ago, in cases where they suffered crop failure, are proposed by Representative Sinclair and others. Other measures of interest here are to authorize the Secretary of Agriculture to establish uniform standards of classification, inspection service and market news service with reference to edible nuts, dairy products, cottonseed and its products and other farm products; to establish standards of weights and measures for commercial feeding stuffs and other mill products; to divest flaxseed and other grains of their interstate character in certain cases; to provide for the use of adequate car doors in shipping flaxseed and other grains; to stabilize prices of farm products; to establish government warehouses for the same; to authorize the government issuance of approved trading rules and business practices for handlers and dealers in dairy, livestock, bee and other farm products.

Bogus Stock Trading

The Denison "blue sky" bill, which aims to stop use of mails and interstate commerce in connection with the promotion of the sale of securities banned by State blue sky commissioners has been reported by the House committee on interstate and foreign commerce, and is thought to have fair prospect of passing the House, as it did last Congress. Its fate in the Senate may be kinder than it was then, in view of the fact that Senator Smith, a Democrat, is chairman of the committee on interstate commerce, where the measure was put to sleep last Congress under the ministration of Senator Cummins, then chairman.

Miscellaneous bills of this Congress are to provide for distribution of government surplus war explosives to settlers for clearing lands; to establish a department of mines; for testing greasewood and sagebrush in producing rubber; to equip Leavenworth penitentiary with a factory to make brushes and brooms; to incorporate the U. S. Platinum Corporation and aid in development of mineral resources in Alaska; to condemn patents necessary in making tungsten and nitrogen lamps, and to investigate the patent office and its administration.

Senator Ladd has put in a metric system bill. Amendment of the China trade act is proposed, which is of interest to the oil industry and other American industries in China. Resale price maintenance, protection against false pretences in merchandising, punishment of commercial bribery, prohibiting misbranding of goods, abolition of the Federal Trade Commission, on one hand, and modification of its functions along constructive lines, on the other; government certification of quality of manufactured products, repeal of the trading with the enemy act, the calling of an international economic conference, regulating the making of measuring and weighing devices, establishment of a central government purchasing agency, authorization of the United States agricultural export commission, desimilization of weights and measures —these are some of the purposes of a number of bills of general interest introduced in Congress.

The outlook is for a long session running well into the summer if not the fall.

Foreign Trade in Chemicals and the Like

Comparison of Exports and Imports in 1923 and 1922

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The foreign trade of the United States in chemicals and allied products showed favorable progress during 1923 and continued the expansion which was started during the previous year. Both exports and imports advanced approximately one-fifth in 1923, as compared with 1922. Even though the aggregate value of $146,147,000 for exports in 1923 was 30 percent below the total value of $210,609,000 for imports, it is but another indication of the development of the chemical industry that about two-thirds of the goods received comprised the crude materials required by the chemical manufacturers, such as sodium nitrate for fertilizers, shellac and other varnish gums and China wood oil for paints and varnishes, dead or creosote oil for coal-tar products, and crude drugs for medicines.

Significant increases in the groups embraced under this heading were made in 1923 as related to 1922 in both the outgoing and incoming shipments. Some of these gains were:—Coal-tar chemicals, exports, 62 percent, and imports, 57 percent; fertilizers and fertilizer materials, exports, 24 percent, and imports, 40 percent; naval stores, exports, 36 percent (imports are negligible as the United States is the principal factor of the world); pigments, paints and varnishes, exports, 44 percent (imports likewise unimportant); gums, resins and balsams, imports, 40 percent (exports of minor importance). The decreases occurred in the industrial chemicals purchased and sold.

Excluding Canada, which is looked upon as more of a domestic market, Latin America (including Central and South America and the West Indies) and the Far East may be said to afford the best markets for American chemicals as a whole, Cuba, Mexico and Japan probably leading as to total values. Europe, of course, offers a ready market for certain specific chemicals such as sodas, wood alcohol, naval stores, medicinal and pharmaceutical preparations, and similar groups.

Coal-Tar Products

Exports of coal-tar products, which accounted for 9 percent of the total chemical exports, recorded the largest gains of the individual groups, truly a notable fact, and one that should be taken to heart by American dye manufacturers who can, if they will, further strengthen the industry through serious efforts to greater increases in exports of coal-tar products. Coal-tar crudes (benzol, tar and pitch, and so on) and colors, dyes, and stains, each comprised 45 percent and intermediates (carbolic acid, aniline oil, and salts, naphthalene, and the like), 3 percent of the total of $12,332,000 for all coal-tar products shipped abroad in 1923. The remaining 7 percent was made up of coal-tar medicinals, photographic chemicals, and all other finished coal-tar products not specifically mentioned. Of the total foreign sales of crudes 60 percent were destined for England, and 7 percent for Canada. Japan took 23 percent, and Canada 21 percent of the intermediates shipped. In contrast with the countries receiving the crudes, the Far East afforded the best market for colors, dyes and stains, having received approximately two-thirds of the total shipments, China purchasing 44 percent; Japan, 15 percent, and British India, 6 percent. In addition, 17 percent was shipped to Canada; 3 percent to Argentina; 2 percent to Belgium, and 1 percent to Mexico. The following table shows the amounts shipped to the chief countries in 1923:—

Exports of Coal-Tar Colors, Dyes, and Stains by Chief Countries of Destination

Country.	Pounds.	Value.
China	11,449,000	$2,431,000
Canada	1,617,000	926,000
Japan	1,618,000	836,000
British India	900,000	350,000
Argentina	275,000	186,000
Belgium	322,000	112,000
Mexico	155,000	79,000
Brazil	63,000	51,000
Cuba	64,000	35,000
England	32,000	16,000
Denmark	34,000	12,000
All other	1,396,000	531,000
Totals	17,925,000	$5,565,000

Small amounts of other finished coal-tar products which included, as stated above, medicinals and photographic chemicals, were shipped to a great many countries, no single one receiving any large amount, England having taken the most, but at that, only 12 percent. Canada took 10 percent, and Mexico, 8 percent.

Of the $17,274,000 worth of coal-tar chemicals entering the United States in 1923, two-thirds comprised crude materials, and three-tenths were finished coal-tar products. Dead or creosote oil was the most important commodity received, 64,200,000 gallons, worth $10,071,000, having arrived. Receipts of colors, dyes, and stains, color acids and color bases totaled $4,424,300 (3,252,000 pounds), of which amount 44 percent came from Germany and 30 percent from Switzerland.

Industrial Chemicals

Industrial chemicals, imports and exports, of which both declined in 1923 from the 1922 figures, found the nearby countries, Canada, Central America, and Cuba, the best markets, for most of the commodities; although Japan and other Far Eastern countries afforded important markets for certain specific commodities. A few of the representative chemicals are analyzed below:—

Sulphuric Acid:—The striking feature in the exports of this acid was the large number of countries to which small shipments were made, although there was a loss of 15 percent in value and 34 percent in quantity from 1922. Canada, one of the largest customers, purchased but 631,656 pounds ($11,390) in 1923, as compared with 5,394,000 pounds ($50,000) in 1922. Cuba took 3,204,000 pounds ($54,000), as compared with 3,449,000 pounds ($58,000). On the other hand, Mexico increased her requirements 120 percent o 2,456,000 pounds ($45,000). As a group, it may be considered that Latin America was the best field for this commodity, with the Far East as second. Imports were 15,000,000 pounds ($29,000) in excess of exports.

Wood and Denatured Alcohol:—Europe afforded the best foreign market for these products, England having taken 35 percent of the total and increased her purchases by 25 percent in quantity from 1922. Germany, which bought 21 percent of the total, represented a loss of 46 percent in quantity from 1922. The Netherlands likewise showed a marked loss of 93 percent from 1922 and took but 1 percent of the total in 1923, against 15 percent in 1922. Shipments to France, on the other hand, amounted to 10 percent of the total in 1923 and but 4 percent in 1922. Scotland also increased its purchases, receiving 6 percent in 1923, against 2 percent in 1922. Japan, third in order of size of shipments, took 14 percent of the total, showing a gain of 64 percent from 1922. Canada, which took but 2 percent of the total, rose 55 percent. Imports were negligible.

Ammonia and Compounds:—A loss of 2,000,000 pounds ($32,000) characterized the export in this group, exclusive of ammonium sulphate. Over half the total number of countries in the world purchased these chemicals. Owing to the variation in prices of the various compounds included in this class, it is difficult to determine the percentage of totals of each country. Although Japan was far above any of the other countries in quantity consumed, the value was below the value of shipments to Argentina, the next country in importance. Shipments to Japan in 1923 were 1,765,000 pounds ($122,000), to Argentina 475,000 pounds ($172,000), and to Mexico 478,000 pounds ($106,000).

Aluminum Sulphate:—This market was limited to comparatively few countries, chief amongst them being Canada with over 90 percent of the total in both years. Whereas, in 1922, except for less than 2 percent which went to China, the remainder was received by Latin America; in 1923, the positions were reversed, 7 percent going to Japan, China and British India, and but 2½ percent to Latin America (Cuba, Mexico, Argentina and Chile). No shipments were made to Europe in 1922, and but one shipment of 60,000 pounds in July, 1923, to England.

Acetate of Lime:—This is another chemical the distribution of which was confined to comparatively few countries. Totals recorded a loss of 20 percent in quantity shipped but a gain of 36 percent in value in 1923, the last six months having been considerably below the first six months of the year. Japan was the leading country of importation in both years, having taken approximately two-thirds of the 1923 quantities, England and the Netherlands following with 12 percent and 7 percent, respectively.

Calcium Carbide:—Foreign sales in 1923 fell 36 percent in quantity and 39 percent in value from 1922. Latin America offered the best markets for this chemical in both years, althongh sales to these countries were considerably below those in 1922, Cuba and Mexico each having dropped 45 percent. The chief countries receiving calcium carbide in 1923, with their proportion of the total, were:—Cuba, 35 percent; Mexico, 23 percent; Philippine Islands, 8 percent; Venezuela, 4 percent; Peru, 3 percent; and Canada, 2 percent.

Bleaching Powder:—The 30 percent loss in foreign sales of this product may be attributed partly to the fact that Canada took 26 percent less material in 1923 than in 1922; Europe, representing 5 percent (1,931,000 pounds) of the total sales in 1922, took but 125,000 pounds in 1923, and Argentina, with 3 percent or (1,093,000 pounds) in 1922, took but 188 pounds in 1923. In 1923 Canada purchased 25,797,000 pounds ($415,000). Cuba, China and Mexico were other countries entering into the trade with 2 percent, 3 percent and 1 percent, respectively.

Formaldehyde:—During the last four months of 1923 sales received an added impetus, two-thirds of the total for the year having been sent abroad in that period, to carry totals of 72 percent in quantity and 100 percent in value above the entire 1922 figures. During the same period heavy shipments were made to Germany and England. Japan representing 41 percent; England, 36 percent; and Cuba, 5 percent—all showed large gains over 1922, while other Latin American and Far Eastern countries were also customers to a lesser extent.

Sodas:—The United States is one of the principal countries of the world in the manufacture of sodium compounds, and therefore, exports are of considerable interest. Although the value of exports declined slightly from $10,330,000 in 1922 to $9,328,000 in 1923, the quantity advanced 15 percent from 349,234,000 to 400,238,000 pounds.

More than double the 1922 quantity of borax reached foreign countriee in 1923, with England taking one-quarter of the total and doubling its previous year's requirements. Scotland, with 15 percent; France, with 14 percent; Germany, with 10 percent; and Ireland. The Netherlands and Belgium, all with considerable quantities, were the principal other European markets in 1923. Japan (15 percent), Canada (7 percent), Mexico and Cuba were other important markets.

Nearly one-third of the total exports of sodium compounds was caustic soda, which was marketed in nearly all the countries of the world, but showed a loss of 22 percent in quantity. This loss may be attributed to the big falling off in demand from Canada, which, in 1922, received 79,485,000 pounds ($919,000), and in 1923 but 15,347,000 pounds ($373,000). As will be observed from the following table, Japan was the chief purchasing country in 1923, with 18 percent; Canada took 13 percent, and Germany, 10 percent:—

Caustic Soda

	Pounds.	Value.
Japan	20,767,000	$999,000
Canada	15,347,000	373,000
Germany	11,333,000	370,000
Mexico	9,908,000	382,000
Cuba	9,636,000	308,000
Argentina	9,539,000	317,000
Italy	7,302,000	238,000
Brazil	7,955,000	287,000
China	3,336,000	101,000
Philippine Islands	3,278,000	96,000
Netherlands	3,200,000	97,000
Java	2,272,000	73,000
Colombia	1,220,000	49,000

The countries to which soda ash were exported were practically the same as those to which the other sodium compounds, not especially mentioned, were shipped. South America, Central America, and the West Indies were the biggest markets. Of the total shipments of soda ash 44 percent were destined for Canada, 23 percent for Cuba, 17 percent for Mexico, and 6 percent for Argentina.

Except for a few specific commodities, such as white arsenic, tartaric acid, citrate of lime, potassium bitartrate, iodine, and ammonium nitrate, the imports of industrial chemicals were relatively unimportant. Due to the big demand in the United States for white arsenic for insecticides, the importations went up over 1,000 percent last year, when 21,150,000 pounds, valued at $1,985,000, entered this country.

Pyroxylin Plastics:—Exports of the pyroxylin products, known as celluloid, pyralin, viscoloid, fiberloid, and so on, in blocks, sheets, or rods, recorded an advance of 58 percent in 1923, as compared with 1922. England took 54 percent of the total; Canada, 29 percent; Belgium, Australia, Mexico, and Argentina accounted for an aggregate 14 percent. The total exports amounted to $2,347,000 (1,940,000 pounds).

Fertilizers and Fertilizer Materials

Foreign sales of fertilizers and fertilizer materials throughout the year 1923 continued the expansion begun in 1922 until a gain of 24 percent, or a total of $20,558,000 (1,097,000 tons) was reached.

The United States has been the world's largest producer of phospate rock, and, therefore, exports of this product have been noteworthy. The development of the phosphate fields of Tunis, Algeria, Egypt, and Morocco in the past few years has naturally affected the trade of the United States; although so far not to the extent which might have been expected. Although registering a slight decline in total value (1 percent), quantities advanced 15 percent in 1923. The total of exports of 828,000 tons, were valued at $5,572,000. Europe is the principal consumer of American phosphates, taking 99 percent of the total shipments of 194,000 tons ($2,478,000) of high-grade hard rock, and 80 percent of the toal of land pebble, 631,000 tons ($3,273,000). Of the European countries, Germany led with 70 percent of high-grade hard rock, and 21 percent of land pebble, followed by Belgium with 17 percent of the former and 10 percent of the latter. Poland, The Netherlands, and England also purchased considerable amounts of high-grade hard rock. Other European countries taking the balance of land pebble shipped were:—Spain, 15 percent; The Netherlands, 11 percent; England, 9 percent; Denmark, 8 percent; and France, 5 percent.

More superphosphates have been finding their way to foreign markets during the past few years. In 1923 the quantities increased 57 percent, from 27,000 tons, valued at $372,000, to 42,000 tons, valued at $541,000. Cuba was the principal consumer, with 58 percent, and Canada was second with 39 percent.

Sulphate of ammonia, which has had such a phenomenal growth in its use as a fertilizer in the past few years, has assumed a relatively important place in exports, 154,000 tons, valued at $11,118,000, being dispatched to foreign countries in 1923. Japan was a particularly favorable outlet, taking one-half of the total shipments. Java and Madura with 15 percent, Cuba with 13 percent, and the Philippine Islands with 9 percent were the other leading countries. Noticeable decreases occurred in purchases by Spain and Italy, as these countries dropped from 27,000 and 3,000 tons in 1922 to but 2,000 and 2 tons, respectively. Japan as the leader in the Oriental East and Cuba in Latin America are introduced as outstanding examples to show the potentialities existing in those regional groups for the expansion of the fertilizer industry, which may be made a reality through the medium of education and cooperative effort.

The United States is also by necessity a large importer of fertilizers and fertilizer materials. Imports in 1923, which accounted for 30 percent of the total chemical imports, advanced 39 percent in quantity and 41 percent in value from 1,340,000 tons, worth $45,123,000, in 1922, to 1,858,000 tons, valued at $63,881,000, in 1923. Advances were made in all the individual items embranced under this head, except in crude potassium chloride and kainit. Purchases of sodium nitrate, mainly arriving from Chile, which made up nearly two-thirds of the total fertilizers, rose 60 percent in value from $26,153,000 (542,000 tons) to $41,956,000 (892,000 tons).

Medicinals and Pharmaceuticals

Comparatively small amounts shipped to many countries characterized the export trade in antitoxins, serums and vaccines. Portugal and England are the only European countries where American goods of this kind find a ready market, although constituting only 13 percent of the total value for the former and 10 percent for the latter. Canada and Cuba, each with 20 percent and Argentina, with 16 percent, were the countries of chief interest.

One noteworthy feature of the American exports of medicinal and pharmaceutical preparations, which class is composed largely of patent and proprietary medicines, and is exclusive of the biologies and of quinine sulphate and other derivatives of cinchona bark, lies in the widespread distribution of these products among the countries of the world. As might be expected, England, Cuba and Canada, where there is a great demand for patent medicines and drug solutions, furnished the best markets for American manufacturers of these goods, these countries importing $3,474,000, $2,168,000, and $1,234,000, respectively, in 1923. Mexico followed closely behind Canada with $1,128,000; while Argentina purchased $771,000 worth. British India, which occupied sixth place in value, registered a 42 percent advance from the previous year's figure. Australia with $492,000, and Columbia with $136,000 worth, were prominent importers. The whole group advanced 15 percent in value to $15,591,000.

The demand for explosives, although having recorded such a large advance throughout the year 1922 over 1921, nevertheless surpassed the 1922 figure by 4 percent in 1923, the total shipments for the year being $3.536,000 (21,408,000 pounds). Sales of dynamite, which accounted for nearly three-quarters of this group, continued on the upswing through 1923 until a total value of $2,484,000 (16,983,000 pounds) was sent abroad.

Pigments, Paints and Varnishes

The revival of American exports of pigments, paints and varnishes, which was indicated in the latter half of the year 1922, was an assured fact, as throughout the year 1923 a steady progress was made until the gratifying gain of 44 percent over 1922 in total values shipped was recorded. All the individual items surpassed those of 1922 in value with the largest extensions appearing in chemical pigments, especially in carbon black and lampblack.

Of the mineral earth and chemical pigments exported, Canada was by far the largest consumer, taking 30 percent of the total 1923 exports of mineral earth pigments, which include ochers, umbers, siennas, whiting, and the like. 64 percent of zinc oxide, 95 percent of lithopone, 48 percent of white and sublimed lead, 24 percent of the other chemical pigments, 33 percent of boneblack, and 10 percent of carbon black and lampblack. Canada's share in enamel and prepared paints and varnishes was much smaller, amounting to but 7 percent of enamel paints, 4 percent of other ready mixed paints, 16 percent of other prepared paints, 5 percent of oil varnishes, and 19 percent of all other varnishes.

Mineral earth pigments have a rather widespread distribution in foreign countries with no country other than Canada sharing to any large extent. British South Africa, 12 percent; Australia, 11 percent; and Cuba, 9 percent, represented the leading importers.

Zinc oxide, red lead, and litharge are more limited as to the number of countries purchasing, and as can be seen by the high percentage taken by Canada, no other single country stood out preeminently above the others, although England with 12 percent and Scotland, 6 percent, account for half of the balance of zinc oxide shipped abroad. Sales of lithopone were confined to twelve foreign countries. Argentina with 22 percent, and Belgium with 20 percent, were the leading customers for white and sublimed lead, which pigments have relatively small sales in many foreign countries. Not considering Canada, no one country stands out as a prominent market for other chemical pigments which were likewise shipped to many countries.

Purchases of Ametrican boneblack by foreign countries were also confined to a few countries; England and Canada bought one-third each, and Germany, one-fifth. Carbon black and lampblack, on the other hand, were sold in all the more important countries using these goods. As might be expected, Europe is the chief consumer, requiring 71 percent of the total exports, England alone taking 40 percent. Outside Europe, Japan with 12 percent, and China, 3 percent, were the only other large consumers.

Latin America, including Central America and the West Indies, offered the best field for prepared paints, buying 43 percent of the total of $582,000 (2,128,000 pounds) of enamel paints, 72 percent of the total of $3,737,000 (1.836,000 gallons) of other ready-mixed paints and 43 percent o fa total of $1,934.000 (11,503,000 pounds) of other prepared paints. Cuba, Mexico, Argentina and Brazil were the leading countries. Europe purchased 25 percent, 7 percent and 15 percent; and the Far East, 19 percent, 16 percent and 20 percent, respectively, of the above-mentioned classes.

Total exports of $1,005,000 (558,000 gallons) of oil varnishes were distributed as follows:—Latin American countries, 40 percent; Europe, 35 percent; Far East, 18 percent; and Canada, 5 percent. The leading countries were Mexico, Cuba, Argentina, Japan, China, Philippine Islands and Australia. Imports of goods of this type are unimportant.

The growth in domestic production and consumption of paint products is a shining example of what can be accomplished through a universal and intensive desire on the part of those interested to accomplish their objectives. The domestic sales campaign has been based on educational principles supported by the prime requisites of service and quality. One great problem that has not yet been overcome is to obviate the seasonal fluctuation inherent in the industry. The remedy for this to a great degree would be a better developed foreign trade in paint products, particularly in the opposite-season countries south of the equator.

Perfumes, Cosmetics and Toilet Preparations

Another indication of the change wrought in recent years in the foreign trade of the United States in chemical and allied products was brought out by the 1923 trade in perfumery, cosmetics and other toilet preparations. It is interesting to note in this connection that exports of goods of this type in 1923 were over $1,000,000 in excess of the imports and showed a gain of 8 percent over 1922 figures. Total exports of this group amounted to $6,879,000 (11,451,000 pounds). The United States has now changed from a large importer to an exporter.

The toilet preparations industry is another of the industries to have expanded its export field to a large extent within the past few years, and American toilet goods are now found in practically every country in the world. Naturally, this country has not looked to Europe for the marketing of this type of goods other than dentifrices, owing to the stronghold already held by France, England and Germany. Africa, which has not been a consumer to any marked extent of other commodities embraced by the term "Chemicals and Allied Products," has, however, purchased appreciable amounts of toilet articles from the United States.

Small and scattering shipments to numerous countries characterized the export trade in perfumery and toilet waters, no large shipments to any single country having been made. Latin American countries furnished the largest markets. The chief countries receiving perfumery in 1923 were: Peru, 10 percent; China, 9 percent; Cuba, 8 percent; Canada, 6 percent; and Australia, 5 percent. Total exports amounted to 655,750 pounds, worth $562,000.

Some of the more important countries purchasing talcum and other toilet powders as to values were: England, 21 percent; Philippine Islands, 19 percent, Canada, Cuba and Australia, 8 percent each; British South Africa, 4 percent; and British India and Argentina, 3 percent each, of the total shipments of $1,672,000 (3,814,000 pounds).

Creams, rouges and other cosmetics to the value of $1,094,000 (2,149,000 pounds) were shipped abroad in 1923, 26 percent of this went to England; 14 percent to Canada; 13 percent to Japan; 12 percent to China; 8 percent to Australia; 8 percent to Cuba; and 3 percent to Argentina.

American dentifrices, which are exceedingly popular in foreign countries and generally conceded to be of a superior quality, are exported to practically every country, with England by far the best customer, one-third of the 1923 total going to that country. The chief countries to which dentifrices were sent in 1923 were:

	Pounds.	Value.
England	973,000	$784,000
Netherlands	44,000	30,000
Spain	27,000	19,000
Canada	51,000	39,000
Cuba	194,000	173,000
Argentina	121,000	108,000
Jamaica	14,000	14,000
Mexico	34,000	16,000
Japan	78,000	70,000
China	86,000	69,000
Australia	156,000	131,000
British South Africa	100,000	90,000
Total to all countries	2,983,000	$2,439,000

England again led in receipts of other toilet preparations, having purchased 20 percent of the total of $1.112.000 (1,849,000 pounds). Canada being second with 17 percent. The other chief countries entering into the trade were: Cuba, 7 percent; Mexico and Australia, 5 percent each; Argentina and Japan, 4 percent each; Panama, 3 percent; and British South Africa, 2 percent.

The chief item of imports of this general group of toilet preparations were perfume materials, for much of which the United States is dependent upon foreign countries. In 1923, $2,470,000 worth were imported.

Essential Oils

At the present time the United States is more an importing than an exporting country for essential and volatile oils, and other requisites of such industries as the flavoring and soft drinks, perfumery, medicinal and pharmaceutical industries. Total imports in 1923 amounted to $5,560,000, in contrast with $1,012,000 in exports. This is another industry showing promise of greater expansion due to increased consumption.

Naval Stores

Exports of naval stores, a distinctly American product, reflected an encouraging growth (36 percent), rising from an aggregate value of $18,510,000 in 1922 to $25,178.000 in 1923. The value of the sales of rosin in 1923 exceeded that in 1922 by 48 percent. England was the best customer, taking 24 percent of the total. Germany with 18 percent and Brazil with 10 percent followed. Of the Latin American group, Argentina with $882,000, and of the Far Eastern group, Japan with $739.000, were prominent.

An advance of 21 percent in foreign sales of turpentine, which were made to numerous countries, characterized the 1923 trade in this article of commerce. Nearly every Latin American country purchased some small amount. England stood out above all other countries with one-half of the total shipments, the nearest approach being by Canada and the Netherlands, with only 8 percent each.

Demand for wood turpentine rose 20 percent in 1923, and reached a total of $406,000 (393.000 gallons). Distribution was fairly extensive to nearly all Latin American countries, but to only a few of the Far Eastern and European countries. Australia, although the largest individual customer, purchased but 18 percent of the total.

Turpentine substitutes, a new class which appeared in the export statistics as such for the first time in 1923, attained a total figure of $358,000 (845.000 gallons). More than double the 1922 quantity of wood tar and pitch was sold in foreign countries in 1923.

Exports of naval stores by regional groups and chief countries to which exported in 1923, were as follows:

Rosin

	Barrels.*	Value.
Total	1,206,000	$11,058,000
Europe	692,000	6,238,000
England	287,000	2,630,000
Germany	230,000	2,034,000
Latin America	287,000	2,634,000
Argentina	98,000	882,000
Brazil	123,000	1,142,000

Turpentine

	Gallons.	Value.
Total	11,478,000	$12,304,000
Europe	8,654,000	8,773,000
England	6,113,000	6,184,000
Scotland	237,000	244,000
Belgium	471,000	462,000
Germany	821,000	821,000
Netherlands	918,000	947,000
Canada	852,000	949,000
Latin America	1,022,000	1,393,000
Argentina	538,000	755,000
Brazil	138,000	198,000
Chile	138,000	175,000
Far East	807,000	988,000
Australia	652,000	792,000
British South Africa	117,000	161,000

Wood Turpentine

	Gallons.	Value.
Total	393,000	$406,000
Latin America	123,000	143,000
Far East	109,000	117,000
Europe	70,000	66,000

Turpentine Substitutes

	Gallons.	Value.
Total	842,000	$358,000
Latin America	329,000	139,000
Far East	278,000	113,000
Europe	103,000	50,000

Wood Tar and Pitch

	Barrels.†	Value.
Total	75,000	$376,000
Europe	55,000	226,000
Latin America	8,000	60,000

* 500 pounds each.
† 280 pounds each.

Crude Drugs

The United States is more an importer than an exporter of crude drugs, herbs, leaves and roots, and the like; therefore, the amounts brought into this country are always of considerable interest. Although the total value in 1923 ($8,733,000) surpassed by 10 percent the value in 1922, certain receipts of individual items, such as licorice extract, failed to reach the 1922 figure of $388,000 (1,579,000 pounds). Cinchona bark receipts lost 15 percent in value but rose 13 percent in quantity, and the totals in 1923 were $779,000 and 2,817,000 pounds.

The Far East was the leading country importing ginseng from the United States in 1923, with 97 percent of the total of $2,245,000 (148,000 pounds). The total value of the other crude drugs exported in 1923 was $1,298,000.

Europe received over one-half of the total shipments of $264.000 worth of logwood extract that were made in 1923. In addition this regional group also purchased $162,000 worth of vegetable dye extracts.

Conclusion

It is much more satisfactory to write and to read that business is better, or that it will be be better, but it is not purposed here to do other than to record what has happened during the past year. Some individuals have stated that all articles of this character are favorable or optimistic, even though those individuals know that their business is not so good or even worse. That the United States has made wonderful progress in chemical foreign trade is shown by the official returns above, and that it should continue to progress even more rapidly is a logical deduction. This is an age of energy, the soul of chemistry, and with the bountiful resources of the United States, coupled with native American resourcefulness, this country should lead the world in the chemical field, provided the chemical industry determines that the goal shall be nothing short of pre-eminence.

Summary of Exports: Calendar Years, 1922 and 1923

Group 0—Animals and Animal Products, Except Wool and Hair

		⌐Twelve months ended December 31¬			
		1922		1923	
		Quantity.	Value.	Quantity.	Value.
Other meat products—					
Meat extracts and bullion cubes	lbs.	255,984	$391,409	531,265	$600,585
Eggs and yolks, frozen, dried or canned	lbs.	704,625	130,944	328,487	49,193
Milk and cream—					
Powdered (dried)	lbs.	6,190,063	786,070	2,437,367	540,784
Animal and fish oils, fats and greases (total)		.....	118,432,275	.....	158,415,723
Animal oils—					
Oleo oil	lbs.	109,386,571	11,464,837	98,854,904	11,841,001
Lard oil	lbs.	699,791	80,043	735,590	88,414
Neatsfoot oil	lbs.	1,147,511	175,875	1,144,812	198,171
Whale oil	lbs.	583,270	53,061	722,530	31,138
Other animal oils	lbs.	1,969,620	189,690	1,514,821	165,467
Fish oils—					
Cod and codliver oil	gls.	60,980	70,581	33,415	59,752
Other fish oil	lbs.	4,697,895	195,071	749,797	77,355
Oleo stock	lbs.	15,596,285	1,523,464	10,300,600	1,172,756
Tallow—					
Edible	lbs.	2,375,803	193,205	1,204,303	99,786
Inedible	lbs.	20,000,472	2,017,557	34,671,935	2,872,904
Lard and substitutes—					
Lard	lbs.	766,950,103	91,484,669	1,035,381,571	130,171,943
Neutral lard	lbs.	20,497,006	2,586,703	24,128,923	3,160,895
Lard compounds containing animal fats	lbs.	16,286,169	1,952,187	7,450,591	1,014,653
Stearins and fatty acids—					
Oleo and lard stearin	lbs.	10,678,056	1,049,692	8,765,194	941,989
Grease stearic	lbs.	3,406,737	277,215	3,520,096	333,196
Oleic acid, or red oil	lbs.	3,590,298	290,482	1,728,091	143,554
Stearic acid[1]	lbs.	5,036,253	480,838	2,709,129	352,915
Other fatty acids	lbs.	.....	.....	153,798	15,264
Oleomargarine, containing animal fats	lbs.	1,843,407	298,487	1,792,436	293,357
Other animal greases, oils and fats	lbs.	57,472,065	4,048,618	60,675,870	5,380,813
Miscellaneous animal products—					
Bones, hoofs and horns, unmanufactured	lbs.	5,927,306	261,292	6,389,035	339,243
Gelatin	lbs.	259,230	175,303	261,712	179,596
Glue of animal origin	lbs.	2,708,654	418,759	2,510,108	386,029
Shells, unmanufactured	lbs.	12,723,148	197,354	19,645,412	175,859
Sponges	lbs.	114,229	141,050	127,190	135,675
Beeswax	lbs.	100,674	27,699	118,456	36,218

Group 1—Vegetable Food Products, Oil Seeds, Expressed Oils, and Beverages

Oilcake and oilcake meal (total)	lbs.	926,301,302	19,897,594	917,454,494	19,838,284
Coconut cake	lbs.	7,960,197	106,057	1,577,940	35,328
Corn cake	lbs.	1,766,689	31,097	15,746	502
Cottonseed cake	lbs.	331,311,165	7,066,212	292,263,128	6,773,010
Linseed cake	lbs.	422,865,573	9,524,980	532,617,638	11,058,112
Peanut cake	lbs.	14,513,060	154,565	672,000	11,760
Other oil cake	lbs.	3,172,090	55,161	2,471,604	49,823
Cottonseed meal	lbs.	117,656,619	2,416,446	52,162,800	1,136,747
Linseed meal	lbs.	17,997,571	404,906	32,081,988	699,777
Other oil-cake meal	lbs.	9,058,338	138,170	3,591,650	73,223
Nuts—					
Peanuts	lbs.	12,621,302	834,912	4,806,335	459,145
Oilseeds and vegetable oils and fats—					
Oilseeds	lbs.	3,836,352	140,590	2,583,798	137,232
Vegetable oils, expressed, and fats (total)	lbs.	141,648,239	14,161,747	99,492,143	10,825,996
Coconut oil	lbs.	12,972,264	1,071,924	16,562,237	1,417,000
Cottonseed oil—					
Crude	lbs.	31,712,143	2,508,696	27,721,523	2,627,428
Refined	lbs.	43,590,678	4,778,446	21,826,194	2,628,212
Total cottonseed oil	lbs.	75,302,821	7,287,142	49,547,717	5,255,640
Peanut oil	lbs.	903,102	100,691	203,485	18,657
Linseed oil	lbs.	2,702,634	382,781	3,013,216	407,863
Soya-bean oil	lbs.	2,458,080	207,288	1,356,220	139,557
Corn oil	lbs.	5,732,993	678,180	4,361,100	558,834
Cocoa butter	lbs.	1,199,969	359,782	762,371	215,247
Vegetable oleomargarine	lbs.	333,756	47,769	1,745,414	240,778
Vegetable oil lard compounds	lbs.	25,478,494	2,968,705	9,616,686	1,338,834
Vegetable soap stock	lbs.	8,134,462	438,343	3,814,986	257,393
Other vegetable oils and fats	lbs.	6,369,664	669,142	8,508,711	976,133
Spices	lbs.	1,363,252	167,241	1,842,893	225,880
Honey	lbs.	2,712,860	280,296	2,086,008	236,558
Glucose (corn syrup)	lbs.	194,004,121	4,889,937	136,599,807	4,570,074
Beverages—					
Fruit juices and flavoring extracts	lbs.	2,319,469	761,284	2,041,506	678,189
Mineral waters, natural and artificial	gls.	209,219	169,473	227,831	193,248

Group 2—Other Vegetable Products, Except Fibers and Wood

Druggists' rubber sundries	lbs.	795,793	871,465	787,590	774,443
Naval stores, gums and resins (total)		.....	18,510,331	.....	25,177,755
Naval stores—					
Rosin	bbls.[2]	799,174	7,488,348	1,205,649	11,057,980
Spirits of turpentine	gls.	9,369,403	10,152,620	11,478,459	12,303,809
Wood turpentine	gls.	494,576	342,430	393,811	405,870
Turpentine substitutes	gls.	.....	.....	844,952	358,103
Tar and pitch wood	bbls.[2]	31,520	159,173	74,692	375,761
Other gums and resins	lbs.	1,657,680	367,760	2,079,080	676,232
Crude drugs, essential oils, dyeing and tanning materials (total)		.....	6,449,722	.....	6,712,371
Drugs, herbs, leaves and roots, crude—					
Ginseng	lbs.	202,722	2,334,903	148,385	2,245,258
Other crude vegetable drugs	lbs.	3,919,912	578,636	5,961,533	1,297,964

		Twelve months ended December 31— 1922. Quantity.	1922. Value.	1923. Quantity.	1923. Value.
Essential oils—					
Peppermint	lbs.	128,606	298,743	123,212	366,273
Other	lbs.	1,056,497	585,072	637,705	645,754
Dye extracts—					
Logwood extract	lbs.	2,626,103	448,713	1,954,098	264,207
Other dye extracts	lbs.	2,614,110	459,861	2,298,788	322,663
Dyeing and tanning materials crude	tons	1,497	138,726	1,442	90,579
Tanning extracts—					
Chestnut	lbs.	7,911,316	253,815	8,714,834	307,579
Other tanning extracts (vegetable and chemical)	lbs.	22,612,678	1,051,163	23,466,809	1,172,094
Miscellaneous vegetable products—					
Starch—					
Cornstarch	lbs.	339,226,525	7,749,375	195,020,108	5,895,139
Other starch	lbs.	23,945,909	580,319	9,215,033	320,452
Total starch	lbs.	363,172,434	8,329,694	204,235,141	6,215,591
Hops	lbs.	14,881,858	3,299,217	20,019,374	5,129,773
Vegetable stearin	lbs.	1,447,896	148,632	253,666	34,609
Vegetable glue	lbs.	891,860	98,121	774,877	85,451
Group 4—Wood and Paper					
Cork, manufactures of—					
Disks, washers and wafers	gross	.....	109,432	2,364,279	137,316
Stoppers	lbs.	300,985	123,420	585,083	171,643
Other manufactures of cork	lbs.	1,660,050	266,606	2,051,950	282,636
Group 5—Nonmetallic Minerals					
Mineral oils—					
Petroleum, crude	gls.	419,796,896	18,348,110	716,551,862	23,111,816
Gasoline, naphtha and other light products	lbs.	579,062,000	126,826,842	845,603,830	137,680,748
Illuminating oil (kerosene)	gls.	895,230,641	83,134,510	847,929,454	76,553,967
Gas and fuel oil[4]	gls.	697,219,404	25,959,704	1,228,594,295	35,708,049
Lubricating oil	gls.	331,359,687	76,642,420	.....	.....
Red and pale	gls.	.....	.....	186,347,147	38,147,688
Black	gls.	.....	.....	47,155,711	6,361,092
Cylinder	gls.	.....	.....	114,252,692	31,551,377
Light oils in small packages	gls.	.....	.....	664,973	596,144
Total lubricating oil	gls.	331,359,687	76,642,420	348,420,523	76,656,301
Lubricating greases	lbs.	58,073,940	3,148,916	75,299,414	3,968,033
Paraffin wax—					
Unrefined	lbs.	83,516,957	2,418,300	94,316,692	2,769,448
Refined	lbs.	200,983,844	6,976,604	235,475,857	8,657,857
Total	lbs.	284,500,801	9,394,904	329,792,549	11,427,305
Residuum and other petroleum products, n.e.s.	gls.	10,091,192	800,044	1,440,775	158,652
Asphalt and bitumen—					
Unmanufactured	tons.	51,216	1,344,440	64,846	1,500,869
Manufactures of	lbs.	29,514,018	390,925	60,969,483	951,137
Lime	bbls.	82,893	116,649	117,887	170,289
Glass and glass products—					
Plate and window glass—					
Window glass, common	Box (50 sq. ft.)	32,333	176,267	50,682	256,243
Plate glass, unsilvered	sq. ft.	2,875,223	1,156,617	1,981,767	843,792
Other window and plate glass, n.e.s.	lbs.	1,975,211	225,851	3,397,376	375,412
Chemical glassware	lbs.	276,509	154,696	247,443	175,801
Other glassware, n.e.s.	lbs.	12,506,101	1,676,202	10,868,527	1,873,874
Clay and clay products—					
Clays—					
Fire clay	tons	21,778	169,664	44,692	303,675
Other clay	tons	20,790	267,908	31,107	329,192
Abrasives—					
Artificial abrasives, crude or in grains	lbs.	6,301,178	548,768	8,680,541	716,663
Other non-metallic minerals—					
Asbestos—					
Unmanufactured	tons	336	49,939	607	48,525
Chalk, manufactures of	lbs.	1,272,354	209,018	1,225,340	150,679
Gypsum or plaster, crude, ground, calcined and manufactures of	lbs.	15,345,725	178,166	17,629,808	226,423
Mica and manufactures of	lbs.	1,134,397	129,186	1,804,342	182,162
Sulphur—					
Sulphur of brimstone	tons	485,664	7,095,628	472,525	7,105,260
Sulphur, refined, sublimed, and flowers of	lbs.	5,162,966	113,729	4,367,090	110,847
Salt	lbs.	269,977,554	1,429,172	251,057,170	1,211,226
Graphite—					
Unmanufactured	lbs.	1,138,708	78,094	1,815,292	138,542
Group 6—Ores, Metals, and Manufactures, Except Machinery and Vehicles					
Aluminum—					
Bauxite and other aluminum ores and concentrates	tons	19,617	961,208	78,560	3,380,486
Copper ores, concentrates, and unrefined copper (copper contents)	tons	232,191	29,570	339,212	41,775
Lead—					
In pigs, bars, etc.—					
From domestic ore	lbs.	11,645,821	604,605	4,110,185	265,589
From foreign ore	lbs.	64,528,794	3,169,571	92,306,894	4,893,343
Total	lbs.	76,174,615	3,774,176	96,417,079	5,158,932
Quicksilver, or mercury	lbs.	21,884	15,910	23,827	25,195
Nickel—					
Oxide and matte	tons	4,157	1,013,069	55	626
Nickel, Monel metal, and alloys	lbs.	913,983	196,702	868,158	307,269
Zinc (spelter), cast in slabs, blocks or pigs—					
From domestic ore	lbs.	53,630,666	2,994,625	84,261,650	5,961,525
From foreign ore	lbs.	6,482,392	405,694	14,148,806	940,291
Total	lbs.	60,113,058	3,400,319	98,410,456	6,901,816
Group 7—Machinery and Vehicles					
Oil-well machinery—					
Well-drilling apparatus	lbs.	12,510,547	1,641,848	11,422,154	1,655,487
Other oil-well machinery	lbs.	15,981,298	2,589,209	24,443,633	4,970,592
Group 8—Chemicals and Allied Products					
Total		.....	106,109,890	.....	123,154,501
Chemicals (total)		.....	51,727,304	.....	57,251,389
Coal-tar products (total)		.....	7,621,808	.....	12,331,666
Crudes—					
Benzol	lbs.	64,740,402	2,362,821	111,336,768	3,647,660
Crude tar and pitch	bbls.	102,150	214,055	513,834	1,694,494
Other crude distillates	lbs.	5,289,029	154,983	9,060,704	300,257

		Twelve months ended December 31— 1922. Quantity.	1922. Value.	1923. Quantity.	1923. Value.
Intermediates—					
Carbolic acid	lbs.	223,146	23,223	232,830	34,389
Aniline oils and salts	lbs.	341,220	65,602	497,457	95,023
Naphthalene	lbs.	109,514	12,657	95,164	10,386
Other intermediates	lbs.	878,114	172,898	1,218,183	243,060
Finished products—					
Coal-tar colors, dyes and stains	lbs.	8,352,437	4,001,145	17,924,536	5,565,371
Medicinals	lbs.	554,166	224,546	237,975	164,160
Photographic chemicals	lbs.	248,119	103,853	214,160	96,317
Other coal-tar finished products, n.e.s.	lbs.	5,673,243	286,025	4,527,146	480,549
Medicinal and pharmaceutical preparations—					
Quinine, sulphate and other salts of cinchona	ozs.	355,181	219,534	392,328	166,736
Radio-active substances	grains	.....	.....	.....	.....
Antitoxins, serums and vaccines	cub.c.	.....	399,617	11,151,218	418,711
Other medicinal and pharmaceutical preparations	lbs.	30,249,353	13,575,687	34,583,318	15,591,301
Acids and anhydrides—					
Acetic	lbs.	5,079,880	367,365	763,850	94,025
Sulphuric	lbs.	12,470,389	201,267	8,243,767	169,161
Boric (boracic)	lbs.	1,560,996	189,581	891,670	104,912
Other acids and anhydrides	lbs.	10,393,865	689,300	10,671,802	667,835
Alcohols—					
Wood and denatured	gls.	1,270,314	922,700	1,207,023	1,275,284
Other alcohol	pf. gls.	2,090,666	497,955	404,837	170,155
Ammonia and ammonium compounds	lbs.	7,247,480	990,111	11,343,804	1,202,976
Aluminum sulphate	lbs.	26,450,657	388,447	35,490,560	504,292
Baking powder	lbs.	3,428,395	1,515,735	4,155,725	1,762,476
Calcium compounds —					
Acetate of lime	lbs.	27,595,990	591,560	21,951,287	806,857
Calcium carbide	lbs.	12,835,916	633,297	8,244,408	384,166
Chlorinated lime or bleaching powder	lbs.	41,089,143	679,769	28,828,428	525,436
Copper sulphate (blue vitriol)	lbs.	5,250,556	256,432	2,290,206	130,879
Dextrine or British gum	lbs.	16,241,674	536,027	16,206,340	626,486
Formaldehyde (formalin)	lbs.	1,940,576	209,386	3,336,983	429,546
Glycerin	lbs.	2,870,463	425,891	1,767,407	318,765
Infants' food, malted milk, etc	lbs.	2,480,589	720,587	1,843,366	543,324
Petroleum jelly	lbs.	7,264,224	1,254,183	8,774,513	1,164,538
Potash—					
Chlorate of	lbs.	562,986	51,066	200,178	21,995
Bichromate of	lbs.	4,430,208	433,552	3,262,760	295,751
Other	lbs.	7,483,175	296,378	4,532,495	188,091
Sodas and sodium compounds (total)	lbs.	349,233,839	10,329,853	400,237,886	9,927,921
Cyanide	lbs.	1,248,294	235,224	5,005,952	473,675
Borax	lbs.	17,650,571	875,101	40,498,964	1,606,054
Soda ash	lbs.	29,627,574	678,983	29,023,704	729,870
Silicate (water glass)	lbs.	29,129,925	802,161	33,103,433	816,543
Sal soda	lbs.	11,463,418	186,284	12,224,131	179,006
Caustic soda	lbs.	146,739,406	5,271,528	114,683,728	3,827,403
Bicarbonate	lbs.	15,856,217	341,459	16,934,348	387,861
Other sodium compounds, n.e.s.	lbs.	97,518,434	2,439,113	148,763,626	2,407,509
Washing powder and fluid	lbs.	3,425,471	201,832	5,732,091	307,900
Other chemicals, except medicinal and pharmaceutical preparations	lbs.	78,851,317	7,528,384	79,438,052	7,120,284
Pigments, paints and varnishes (total)	lbs.	.....	11,479,260	.....	16,551,716
Mineral earth pigments, ocher, umber, sienna, metallic whiting, etc	lbs.	27,678,305	972,735	28,584,484	990,177
Chemical pigments—					
Zinc oxide	lbs.	7,953,847	593,128	10,047,408	743,577
Lithopone	lbs.	3,231,722	169,982	2,970,743	176,624
Bone black	lbs.	2,056,593	117,014	3,018,530	181,383
Carbon and lampblack	lbs.	17,062,311	2,028,105	29,020,743	4,723,166
Red lead and litharge	lbs.	3,366,375	294,133	3,680,663	372,828
White and sublimed lead	lbs.	9,721,631	747,349	10,344,089	836,275
Other chemical pigments	lbs.	4,314,040	377,713	6,561,780	633,239
Paints, stains and enamels—					
Enamel paints	lbs.	1,501,520	418,521	2,128,074	582,019
Other ready-mixed paints	gls.	1,351,896	2,769,132	1,838,330	3,736,725
Other paints	lbs.	10,188,393	1,720,360	11,502,947	1,934,444
Varnishes—					
Oil varnishes	gls.	376,416	657,117	558,097	1,005,441
Other varnishes	gls.	398,679	613,971	408,005	626,818
Fertilizers and fertilizer materials (total)	tns	934,947	16,640,364	1,096,612	20,557,992
Nitrogenous fertilizer materials—					
Sulphate of ammonia	tons	147,331	8,736,611	150,544	10,874,627
Other nitrogenous materials	tons	1,663	84,274	13,291	614,814
Phosphate materials—					
Phosphate rock—					
High-grade hard rock	tons	202,300	2,548,587	194,339	2,477,501
Land pebble	tons	512,777	3,269,179	630,565	3,273,006
Other phosphate rock	tons	4,217	40,401	2,647	21,664
Superphosphates (acid phosphates)	tons	26,781	372,279	42,156	541,460
Prepared fertilizer mixture	tons	14,416	690,972	17,997	832,948
Other fertilizers, n.e.s.	tons	25,462	898,061	45,073	1,921,972
Miscellaneous chemical products—					
Soap—					
Toilet or fancy	lbs.	7,565,881	2,869,007	7,369,539	3,022,480
Laundry	lbs.	67,079,838	4,604,406	66,498,491	4,701,141
Other soap	lbs.	14,173,788	1,349,697	18,456,371	1,588,011
Perfumery and toilet waters	lbs.	726,489	504,167	655,750	562,385
Talcum and other toilet powders	lbs.	3,642,604	1,397,542	3,814,379	1,671,588
Creams, rouges and other cosmetics	lbs.	2,071,263	966,133	2,148,663	1,093,747
Dentifrices	lbs.	4,026,935	2,403,497	2,983,088	2,439,427
Other toilet preparations	lbs.	1,847,684	1,038,528	1,849,415	1,111,536
Group 9—Miscellaneous					
Fly paper and fly traps	lbs.	836,785	188,950	754,328	174,140
Brushes—					
Toilet brushes	number	1,143,457	280,362	1,775,383	405,187
Paint brushes	number	404,767	133,924	767,582	220,672
Other brushes	number	2,108,151	299,498	2,174,962	357,300

[1] Includes other fatty acids prior to January 1, 1923.
[3] Of 500 pounds. [3] Of 280 pounds.
[4] Does not include fuel or bunker oil laden on vessels engaged in the foreign trade, which aggregated during the month and 12 months ending December as follows:—December, 1922, 2,660,408 barrels, valued at $3,292,247; 1923, 3,045,613 barrels, valued at $3,980,676; 12 months ending December, 1922, 31,602,201 barrels, valued at $43,677,579; 1923, 37,581,845 barrels, valued at $52,204,729.

Summary of Re-exports from U. S., 1923 and 1922

Group 0—Animals and Animal Products, Except Wool and Hair

Articles.		Twelve months ended December 31— 1922. Quantity.	1922. Value.	1923. Quantity.	1923. Value.
Eggs, frozen, dried and canned	lbs.	2,584,937	$439,455	652,703	$91,150
Egg albumen	lbs.	88,479	46,485	456,573	108,186
Oils, animal—					
Fish oils	gals.	33,100	20,913	10,069	8,242
Other animal oils, fats and greases	lbs.	149,268	49,668	439,074	33,939
Sponges	lbs.	.....	144,821	151,549	126,395

Group 1—Vegetable Food Products, Oil Seeds, Expressed Oils, and Beverages

Nuts—					
Coconuts	No.	579,043	16,590	104,493	3,808
Peanuts	lbs.	473,211	21,645	1,121,762	70,375
Oilseeds—					
Copra	lbs.	1,112,919	55,568	3,078,907	151,356
Other oilseeds	lbs.	1,176	70	19,265	1,001
Oils, expressed, total	lbs.	.....	780,064	10,778,891	1,301,943
Chinese nut oil	lbs.	2,703,495	343,830	3,463,058	625,410
Coconut oil	lbs.	2,798,766	210,569	4,204,138	346,350
Olive oil, edible	lbs.	66,698	20,536	75,808	16,286
Palm and palm kernel oil	lbs.	891,364	59,502	1,695,432	124,270
Peanut oil	lbs.	40,230	4,418	83,851	8,320
Soya bean oil	lbs.	418,736	31,824	172,096	13,251
Cocoa butter	lbs.	16,864	4,666	17,481	5,056
Other vegetable oils, fats, and greases	lbs.	.....	105,719	1,067,027	163,000
Spices, total	lbs.	4,995,076	695,067	6,043,904	1,022,081
Cassia	lbs.	906,497	48,186	831,645	59,740
Cloves	lbs.	.....	.....	237,473	60,616
Ginger root	lbs.	439,553	43,039	259,931	29,135
Nutmegs	lbs.	.....	.....	174,290	30,722
Pepper	lbs.	1,255,403	113,075	1,718,062	152,155
Vanilla beans	lbs.	46,723	97,740	41,033	135,187
Other spices	lbs.	2,346,900	393,027	2,745,470	554,526
Honey	lbs.	189,492	8,261	137,741	9,465
Sago, tapioca, cassava, and arrowroot	lbs.	1,821,426	79,938	490,791	28,802

Group 2—Other Vegetable Products, Except Fibers and Wood

Gums, total	lbs.	3,855,761	1,270,914	3,469,009	987,214
Shellac	lbs.	1,248,688	840,286	704,293	450,452
Dammar, kauri, and copal	lbs.	1,646,610	265,708	1,577,480	244,780
Camphor, crude, natural	lbs.	8,140	6,125	4,100	3,932
Camphor, refined and synthetic	lbs.	19,111	16,649	30,322	28,129
Chicle	lbs.	21,842	11,151	185,432	67,035
Other gums and resins	lbs.	911,370	130,996	967,382	192,886
Opium, crude	lbs.	12,148	33,528	10	66
Other vegetable drugs	lbs.	89,676	14,500	1,415,825	245,066
Lemon oil	lbs.	12,592	8,404	11,135	13,114
Other essential oils	lbs.	.....	192,604	128,079	217,280
Logwood and other dyewoods	tons	6	450	2,537	69,227
Mangrove, myrobalans, quebracho, and other crude dyeing or tanning materials	lbs.	.....	28,672	1,659	72,322

Articles.		Twelve months ended December 31— 1922. Quantity.	1922. Value.	1923. Quantity.	1923. Value.
Quebracho extract	lbs.	3,649,411	185,468	1,971,721	81,888
Other dyeing or tanning extracts	lbs.	1,961,047	71,659	504,394	15,564
Starch	lbs.	376,037	10,927	116,715	5,320
Hops	lbs.	231,135	56,464	93,254	18,083
Vegetable wax	lbs.	862,480	148,629	345,429	69,155

Group 3—Textiles

Animal hair, unmanufactured	lbs.	236,645	56,111	683,947	206,701

Group 4—Wood and Paper

Cork wood or bark	lbs.	112,557	5,948	1,220,731	27,214

Group 5—Nonmetallic Minerals

Petroleum, crude	gals.	7,044,434	74,121	13,634,024	150,374
Refined petroleum products	gals.	3,315,048	104,686	367,357	23,968
Asbestos, unmanufactured	tons	192	63,625	141	29,565
Mineral wax (ozokerite)	lbs.	55,094	6,542	517,138	24,277

Group 6—Ores, Metals, and Manufactures of, Except Machinery and Vehicles

Antimony, matte, regulus, or metal	lbs.	37,218	1,548	15,958	1,047
Lead pigs, bars, and old	lbs.	180,511	7,789	4,052,404	296,452
Zinc blocks, pigs and old	lbs.	460,505	23,428	11,209	966

Group 8—Chemicals and Allied Products

Totals		.....	2,216,133	.....	1,628,464
Chemicals, total		.....	1,302,103	.....	829,290
Coal-tar colors and dyes	lbs.	90,091	236,935	104,950	107,360
Indigo, natural and synthetic	lbs.	30,668	32,268	110	282
Other coal-tar products	lbs.	.....	29,991	79,423	25,884
Quinine and other cinchona salts	ozs.	17,887	13,699	38,107	23,058
Medicinal and pharmaceutical preparations	lbs.	.....	24,441	249,447	112,065
Acids and anhydrides	lbs.	417,296	100,455	319,954	47,057
Carbonate of potash	lbs.	182,808	12,052	24,000	1,780
Other potash salts	lbs.	1,252,762	78,447	579,334	45,234
Cyanide of soda	lbs.	164,232	11,593	650,163	42,913
Other salts of soda	lbs.	.....	74,113	2,024,800	51,710
Other chemicals, n. e. s.	lbs.	.....	688,109	6,997,145	371,337
Paints, pigments, and varnishes	lbs.	.....	30,989	411,404	29,890
Fertilizers—					
Nitrate of soda	tons	13,087	693,166	11,675	623,534
Chloride of potash (muriate)	tons	1,794	67,569	183	11,096
Sulphate of potash	tons	39	2,391	235	12,683
Other fertilizers	tons	848	60,094	566	31,204
Explosives and fireworks	lbs.	.....	18,665	42,937	12,911
Perfumery, cosmetics, and toilet preparations	lbs.	.....	41,156	53,294	77,856

Group 9—Miscellaneous

Bristles	lbs.	179,615	191,756	174,663	252,639
Brushes	No.	128,661	13,809	401,940	33,256

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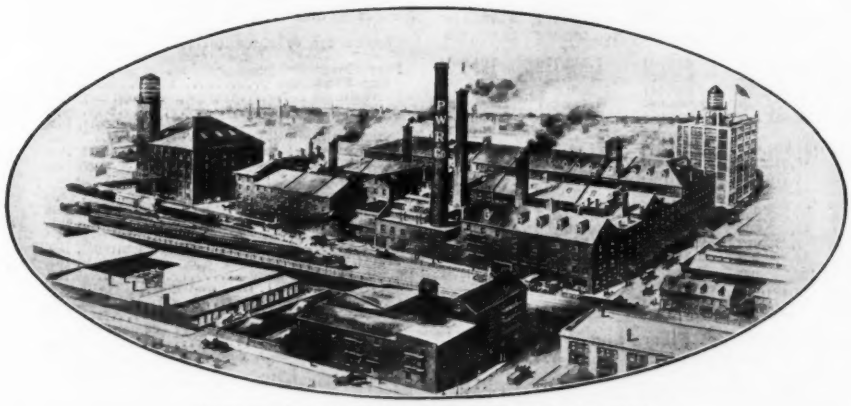
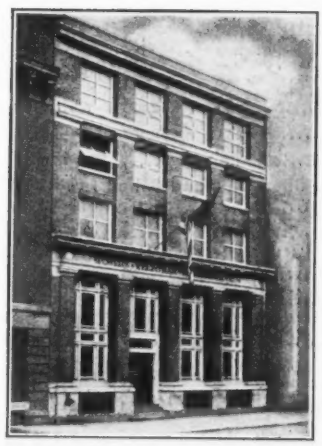


MAIN OFFICE AND LABORATORIES, PHILADELPHIA



NEW YORK OFFICE AND WAREHOUSE

PHILADELPHIA OFFICE

ST. LOUIS OFFICE AND WAREHOUSE

POWERS-WEIGHTMAN-ROSENGARTEN CO.

Manufacturing Chemists

New York PHILADELPHIA St. Louis

Summary of Imports, Calendar Years, 1922 and 1923

Group 0—Animals and Animal Products, Except Wool and Hair

	Twelve months ended December 31— 1922 Quantity.	1922 Value.	1923 Quantity.	1923 Value.
Eggs—				
Eggs and egg yolks, preserved.....dut., lbs.	18,239,074	$3,244,372	16,253,300	$3,925,165
Egg albumen .....dut., lbs.	6,569,546	2,066,983	7,046,299	2,711,676
Animal and fish oils, fats and greases (total)..	.....	4,999,089	.....	5,059,896
Animal oils, n.e.s. .....dut., gls.	[1]4,936,014	[1]2,733,351	.....	.....
Whale oil .....dut., gls.	[2]48,277	[2]17,162	3,977,003	2,068,038
Cod and codliver oil.....free, gls.	1,809,478	855,563	2,396,565	1,334,684
Other fish oils .....dut., gls.	[2]44,091	[2]10,913	716,750	225,997
Animal fats—				
Beef and hog fats.....free, lbs.	[1]1,791,681	[1]129,445	.....	.....
dut., lbs.	[2]336,082	[2]22,385	11,373,792	879,167
Grease and oils, n.e.s.....free, lbs.	[1]11,042,968	[1]601,364	.....	.....
dut., lbs.	.....	628,886	10,426,801	552,010
Miscellaneous animal products—				
Bones, hoofs and horns, unmanufactured, free, lbs.	80,130,362	1,096,257	115,352,977	1,690,744
Glue stock, hide cuttings, etc.....free, lbs.	27,390,034	1,065,606	32,336,741	1,304,075
Gelatin ....dut., lbs.	[1]2,133,434	[1]815,161	.....	.....
Edible .....dut., lbs.	[2]702,059	[2]225,543	3,125,406	911,270
Other, and manufactures of.....dut., lbs.	[2]457,254	[2]214,300	2,021,555	952,923
Glue and glue size.....dut., lbs.	5,827,646	701,307	7,228,255	648,261
Casein or lactarene.....free, lbs.	[1]10,321,399	[1]853,276	.....	.....
dut., lbs.	[2]4,021,009	[2]514,552	26,489,992	4,400,744
Sponges .....dut., lbs.	.....	772,556	1,550,936	1,025,687
Beeswax and other animal wax.....free, lbs.	3,182,714	687,742	3,579,088	699,500

Group 1—Vegetable Food Products, Oil Seeds, Expressed Oils, and Beverages

Nuts—				
Coconut meat, desiccated or prepared.. dut., lbs.	34,558,784	2,491,561	36,915,957	2,844,939
Peanuts—				
Shelled .....dut., lbs.	8,050,992	384,061	48,364,137	2,294,359
Not shelled .....dut., lbs.	3,115,297	137,300	3,938,025	174,227
Other edible nuts, n.e.s.....dut., lbs.	.....	1,404,390	8,301,948	1,282,703
Oil seeds and vegetable oils and fats—				
Oil seeds—				
Cottonseed .....dut., lbs.	[2]39,783,718	[2]303,249	68,841,666	946,208
Castor beans .....dut., lbs.	81,673,345	2,409,385	88,539,307	3,040,858
Copra, not prepared .....free, lbs.	268,955,518	9,854,576	332,974,498	13,477,469
Flax seed .....dut., bush.	14,913,161	31,106,603	24,332,329	48,956,956
Poppy seed .....dut., lbs.	[2]3,316,023	[2]292,999	6,548,607	658,411
Other oil seed .....free, lbs.	5,632,539	244,235	25,581,173	1,150,944
dut., lbs.	[2]907,986	[2]38,453	9,000,000	360,780
Vegetable oils, expressed, and fats (total)....	.....	59,036,813	.....	64,517,683
Chinese wood oil, or nut oil.....free, gls.	10,545,239	7,891,251	11,638,890	13,397,000
Coconut oil .....free, lbs.	224,153,072	16,127,781	178,788,397	12,710,739
dut., lbs.	3,167,024	240,992	3,003,752	235,459
Cocoa butter .....dut., lbs.	8,291,964	2,068,185	418,393	98,016
Cottonseed oil .....dut., lbs.	20,779	3,500	25,044	1,256
Olive oil, edible .....dut., lbs.	61,186,645	11,811,146	77,190,457	12,217,505
Olive oil, inedible.....free, gls.	3,571,706	1,963,589	5,413,938	3,393,701
Palm oil .....free, lbs.	57,516,889	3,771,898	128,494,679	9,339,481
Peanut oil .....dut., lbs.	2,469,938	281,492	8,008,622	759,904
Rape oil .....dut., gls.	1,448,102	957,473	2,124,330	1,423,431
Linseed oil .....dut., lbs.	144,136,792	10,927,671	43,096,714	4,214,376
Soya bean oil .....dut., lbs.	17,294,094	1,013,173	41,679,110	2,680,200
Vegetable tallow .....free, lbs.	[2]31,402	[2]2,777	8,547,617	588,773
Vegetable wax .....free, lbs.	7,706,106	1,220,922	9,738,939	1,382,210
Other vegetable oils .....free, lbs.	.....	548,099	17,769,735	1,906,168
dut., lbs.	.....	206,864	2,201,474	169,404
Cocoa or cacao beans.....free, lbs.	344,885,923	32,042,600	414,124,541	33,799,019
Spices (total)	99,526,744	11,690,925	103,587,487	13,639,485
Capsicum or cayenne pepper and paprika—				
Unground .....dut., lbs.	2,996,373	452,961	7,432,778	764,981
Ground .....dut., lbs.	3,473,465	496,258	2,981,937	427,140
Cassia and cassia vera, unground....dut., lbs.	9,721,920	528,447	10,600,525	640,185
Cloves, unground .....dut., lbs.	5,477,190	1,266,947	7,785,887	1,423,762
Ginger root, unground .....dut., lbs.	6,043,213	604,659	5,692,271	655,405
Mustard—				
Seed, whole .....free, lbs.	[1]3,264,085	[1]503,846	.....	.....
dut., lbs.	[2]1,312,162	[2]74,467	13,870,914	682,468
Ground or prepared .....dut., lbs.	1,773,185	987,817	1,508,415	890,757
Nutmegs, unground .....dut., lbs.	4,982,192	639,065	4,103,945	557,990
Pepper, unground .....dut., lbs.	[2]28,268,112	[1]1,971,579	.....	.....
Black .....dut., lbs.	[2]5,407,297	[2]297,778	24,935,257	1,676,115
White .....dut., lbs.	[2]1,612,804	[2]173,510	5,048,806	506,340
Vanilla beans .....dut., lbs.	1,234,542	2,433,504	940,512	2,630,475
Other spices .....dut., lbs.	13,960,204	1,260,087	18,686,440	2,783,867
Molasses .....dut., gls.	104,885,041	1,655,917	183,531,840	4,096,823
Honey .....dut., lbs.	1,707,256	111,994	364,970	28,656
Lemon, lime and sour orange juice, not more than 2 percent alcohol .....free, lbs.	[2]530.780	[2]72,876	2,443,402	199,958

Group 2—Other Vegetable Products, Except Fibers and Wood

Gums, resins and balsams, n.e.s. (total).....	.....	30,917,722	.....	43,251,964
Varnish, gums, and resins—				
Copal, dammar and kauri.....free, lbs.	[1]29,053,463	[1]3,327,740	.....	.....
Dammar .....free, lbs.	[2]2,006,721	[2]344,129	11,484,136	1,482,168
Kauri .....free, lbs.	[2]2,406,639	[2]415,752	8,917,337	2,018,187
Shellac .....free, lbs.	25,162,510	14,915,636	36,446,775	22,955,251
All other .....free, lbs.	[2]8,273,882	[2]871,674	36,794,233	3,962,114
Tar, pitch and turpentine.....free	.....	[2]27,142	.....	69,926
Camphor—				
Natural, crude .....dut., lbs.	2,460,291	1,553,572	3,486,082	2,214,008
Refined and synthetic.....dut., lbs.	2,690,830	1,880,797	4,002,243	2,880,883
Chicle .....dut., lbs.	9,207,979	4,631,954	8,327,444	4,123,890
Balsams, crude .....dut., lbs.	489,815	198,299	367,738	193,064
Gums and resins, n.e.s.—				
Arabic .....dut., lbs.	8,191,736	798,010	9,857,703	1,239,788
Tragacanth .....free, lbs.	[2]258,924	[2]142,484	1,203,218	590,438
Gambier .....free, lbs.	9,003,374	433,307	6,321,653	442,816
Asafetida .....free, lbs.	[2]32,423	[2]13,377	86,039	20,012
All other .....free, lbs.	8,548,798	1,146,939	8,721,670	910,247
dut., lbs.	1,408,421	216,909	34,466	49,172
Drugs, herbs, leaves, roots, etc.—				
Cinchona bark or other from which quinine may be extracted .....free, lbs.	2,503,615	921,700	2,816,503	778,983
Pyrethum or insecticide flowers.....free, lbs.	[2]620,825	[2]237,187	2,973,863	1,397,910
Licorice root .....dut., lbs.	56,129,388	2,214,796	64,824,928	2,360,084
Licorice extract .....dut., lbs.	[2]539,720	[2]135,882	1,231,618	274,679
Nux vomica .....free, lbs.	[2]379,052	[2]18,488	2,196,161	95,927
Opium crude (8.5 percent or more of morphine) .....dut., lbs.	148,234	402,740	114,407	448,040
Senna .....free, lbs.	[2]1,137,890	[2]79,036	3,441,566	304,915
All other .....free, lbs.	[2]7,104,366	[2]428,647	20,843,367	2,373,017
dut., lbs.	788,816	141,412	2,845,483	698,966
Essential and distilled oils—				
Bergamot .....free, lbs.	[2]35,682	[2]104,824	108,704	273,799
Citronella and lemon grass.....free, lbs.	[2]315,361	[2]146,407	1,017,068	651,592
Lavender .....free, lbs.	[2]79,298	[2]128,833	243,258	448,828
Lemon .....dut., lbs.	689,520	466,034	416,232	258,102
Orange .....dut., lbs.	[2]48,399	[2]92,273	221,702	443,863
All other .....free.	.....	[2]563,539	.....	2,673,430
dut., lbs.	.....	[2]3,604,470	506,686	810,390
Dyeing and tanning materials of vegetable origin (total)	.....	7,379,284	.....	8,952,311
Logwood .....free, tons	33,096	616,462	36,431	659,995
Mangrove bark .....free, tons	3,478	87,379	5,886	160,078
Myrobalans fruit .....free, tons	[2]4,130	[2]86,880	27,165	594,521
Quebracho wood .....free, tons	54,085	626,123	24,236	382,436
Sumac .....free, tons	5,526	281,723	6,963	414,737
Valonia .....free, lbs.	[2]986	[2]72	16,450,341	334,446
Other crude .....free, lbs.	.....	1,023,733	75,829,206	1,383,069
Extracts for dyeing, coloring, etc...dut., lbs.	3,151,801	214,030	4,714,969	343,512
Extracts for tanning—				
Quebracho .....free, tons	[1]80,923,165	[1]3,484,475	.....	.....
dut., lbs.	[2]19,691,422	[2]706,433	135,498,346	4,508,237
All other .....free, lbs.	[2]5,329,140	[2]195,039	.....	.....
dut., lbs.	[2]1,878,082	[2]56,935	6,036,726	171,280
Miscellaneous vegetable products—				
Starch .....dut., lbs.	8,014,490	334,623	13,382,414	420,538
Vegetable glue .....dut., lbs.	.....	.....	55,999	3,317
Hops .....dut., lbs.	1,200,943	300,711	1,017,865	274,091

Group 3—Textiles

Human hair—				
Raw, uncleaned .....dut., lbs.	907,721	663,540	2,169,928	1,155,244
Cleaned, and manufactures of.....dut.,	.....	[1]4,634,089	.....	.....
Cleaned and drawn, not manufactured.. dut., lbs.	[2]42,301	[2]170,244	102,158	267,305
Horse hair, tails and manes.....free, lbs.	5,347,671	2,256,586	6,945,249	3,225,115
Other animal hair .....free, lbs.	5,465,514	662,547	11,251,498	1,438,714
Bolting cloth..... .....free, lbs.	.....	479,128	21,359	455,501

Group 4—Wood and Paper

Cork—				
Bark or wood, unmanufactured.....free, lbs.	60,116,486	1,560,059	64,236,492	1,782,869
Waste, shavings, etc.....free, lbs.	184,541,464	2,484,321	163,310,185	1,944,691
Disks, wafers and washers.....dut., lbs.	136,654	58,205	298,982	242,207
Other manufactures of cork.....dut.,	.....	[2]35,622	.....	.....
Decalcomania, not printed.....free, lbs.	.....	94,637	387,879	100,857
Decalcomanias .....dut., lbs.	[2]51,351	[2]63,055	184,686	208,141

Group 5—Nonmetallic Minerals

	Twelve months ended December 31— 1922 Quantity.	1922 Value.	1923 Quantity.	1923 Value.
Mineral oils (totals).....gls.	5,700,786,857	88,185,711	4,183,537,252	78,154,090
Crude petroleum .....free, gls.	5,346,953,774	70,383,309	3,444,631,182	53,882,278
Refined petroleum oil products—				
Lubricating, illuminating, and fuel oils, tops and other unfinished products....free, gls.	[1]115,405,578	[1]7,547,058	.....	.....
Topped, including fuel oils.....free, gls.	[2]123,778,279	[2]1,636,788	513,502,937	7,526,360
Tops and other unfinished distillates.. free, gls.	[2]39,561,711	[2]2,776,209	32,988,174	1,690,259
Gasoline, naphtha and other finished light products .....free, gls.	62,132,651	5,440,666	190,894,393	14,803,170
Illuminating oil .....free, gls.	[2]146,450	[2]40,576	301,483	55,657
Lubricating oils .....free, gls.	[2]1,808,414	[2]341,105	1,219,983	196,366
Paraffin and paraffin wax.....free, lbs.	7,447,213	299,480	12,843,022	559,087
Asphalt and bitumen .....free, tons	111,302	1,000,463	129,138	1,079,966
Lime and limestone, crude.....dut., 100 lbs.	[2]115,997	[2]73,248	507,139	428,903
Glass, cylinder, crown and sheet.....dut., lbs.	[1]41,597,241	[1]2,085,182	.....	.....
Unpolished .....dut., lbs.	[2]11,254,210	[2]497,476	46,660,671	2,120,191
Bent, ground, beveled, colored, painted, etc., and polished .....dut.	.....	[2]209,288	.....	791,788
Plate glass—				
Unsilvered .....dut., sq. ft.	10,797,073	5,089,832	26,260,476	16,046,805
Clay or earths—				
Kaolin, china and paper clay.....dut., tons	276,968	2,966,805	279,166	3,050,099
Other clays, n.e.s.....dut., tons	48,000	492,481	67,656	619,727
Abrasive materials (total).....	.....	1,943,171	.....	4,240,972
Natural abrasives—				
Corundum .....free, tons	990	55,124	5,018	375,628
Emery ore .....free, tons	2,623	77,691	6,344	234,890
Diamond dust and bort.....dut.	.....	[2]52,217	.....	230,683
Pumice stone and manufactures of..dut.	.....	[2]31,522	.....	128,693
Flint .....free, tons	14,321	145,805	14,243	130,974
Artificial abrasives—				
Crude .....free, lbs.	29,520,562	1,356,905	86,746,717	2,650,632
Manufactured .....dut., lbs.	.....	143,808	1,056,106	92,457
Asbestos—				
Unmanufactured .....free, tons	133,417	5,144,700	189,661	7,445,143
Carbon and manufactures of.....dut.	.....	338,205	.....	312,499
Chalk—				
Unmanufactured .....free, tons	120,927	174,378	122,983	175,730
Gypsum or plaster rock.....dut., tons	[1]23,955	[1]382,593	.....	.....
Crude .....free, tons	[2]130,953	[2]169,923	400,115	629,203
Ground, calcined, cements and other manufactures of .....dut.	.....	[2]45.517	.....	127,856
Mica—				
Crude, unmanufactured .....dut., lbs.	649,885	360,196	1,017,712	509,717
Pyrites or sulphuret of iron, containing more than 25 percent sulphur.....free, tons	279,454	1,199,101	259,926	1,248,980
Talcum, steatite, French chalk.....dut., lbs.	36,604,970	371,684	38,811,812	409,600
Magnesite, not purified .....free, tons	[1]90,190	[1]1,669,760	.....	.....
dut., lbs.	[2]66,490,219	[2]583,467	172,069,989	1,132,113
Salt .....free, 100 lbs.	[1]1,835,026	[2]425,025	.....	.....
dut., lbs.	[2]441,249	[2]98,011	1,968,791	404,318
Graphite or plumbago.....free, tons	[2]8,357	[1]341,365	.....	.....
dut., lbs.	[2]6,491,988	[2]139,596	39,633,575	606,336
Mineral wax .....free, lbs.	8,989,972	371,161	5,000,597	216,906
Other non-metallic minerals.....free,	.....	[2]203,496	.....	1,050,760
dut.	.....	408,968	.....	1,329,226

Group 6—Ores, Metals, and Manufactures, Except Machinery and Vehicles

Manganese ores .....free, tons	327,727	2,695,724	9,062	137,016
dut., (manganese content), tons	[2]46,724	[2]704,040	196,986	3,737,494
Chrome ore or chromite..... free (chrome content), tons	90,081	741,186	128,763	1,123,120
Ferrochromium, chromium metal and chromium vanadium .....dut., lbs.	[2]52,102	[2]12,138	3,521,930	309,163
Ferrosilicon .....dut. (silicon content), lbs.	32,463,192	830,905	26,286,411	1,054,325
Tungsten ores .....free, tons	[1]1,655	[2]79,190	.....	.....
dut. (tungsten content), lbs.	[2]21,840	[2]2,061	.....	.....
Tungsten and alloys..... dut. (tungsten content), lbs.	[2]723,489	[2]212,571	615,261	215,580
Vanadium ore.....free, lbs.	[2]95,758	[2]11,575	4,177,116	229,224
Aluminum—				
Bauxite, crude .....free, tons	[2]22,219	[1]133,275	.....	.....
dut., lbs.	[2]5,229	[2]21,271	119,020	593,882
Metal, crude scrap and alloy.....dut., lbs.	39,951,690	7,342,376	42,991,105	8,503,677
Antimony—				
Ore .....free (antimony content), lbs.	.....	.....	2,094,095	44,721
Metal, matte, regulus, etc.....dut., lbs.	17,743,863	600,293	15,626,928	718,069
Cobalt, ore and metal.....	131,559	328,471	284,358	908,760
Copper ore, concentrates, and matte—				
Ore (copper content).....free, lbs.	71,203,126	8,527,495	90,152,703	11,735,291
Concentrates (copper content).....free, lbs.	32,907,671	3,326,761	49,964,288	6,895,352
Regulus, coarse metal and cement copper (copper content) .....free, lbs.	8,728,039	997,501	2,960,849	408,666
Composition metal, copper chief value... free, lbs.	1,110,599	118,739	4,202,441	599,993
Copper manufactures, n.e.s.....dut., lbs.	.....	149,347	175,716	93,032
Brass—				
Old, and clippings for remanufacture.free, lbs.	143,924,404	10,985,308	40,790,349	3,992,917
Manufactures of brass.....dut., lbs.	.....	524,782	680,801	464,179
Bronze and manufactures of.....dut.	.....	524,065	.....	609,428
Lead (total)	.....	5,227,417	.....	14,613,071
Quicksilver or mercury.....dut., lbs.	[2]168,119	[2]101,865	1,568,551	901,031
Nickel—				
Ore and matte.....free, lbs.	3,085,632	396,726	14,601,820	1,145,645
Iridium .....free, oz. troy	[2]770	[2]149,012	1,611	276,539
Osmium and osmiridium.....free, oz. troy	[2]708	[2]74,294	2,636	297,228
Palladium .....free, oz. troy	[2]2,919	[2]162,388	14,578	857,071
Rhodium and ruthenium.....free, lbs.	[2]83	[2]5,568	1,292	108,961
Tin—				
Ore .....free, tons	12,325	5,504,434	3,871	2,476,870
Zinc—				
Ore .....free, lbs.	[2]238,107	[2]5,238	406,743	17,255
dut., lbs.	3,620,400	16,726	2,711,571	85,486
Zinc dust and other manufactures....dut., lbs.	.....	75,393	66,044	16,714

Group 8—Chemicals and Allied Products

Total .....free	.....	63,065,239	.....	86,522,790
dut.	.....	37,457,187	.....	36,871,605
Chemicals (total)	.....	41,398,690	.....	47,100,600
Coal-tar chemicals (total)	.....	11,012,769	.....	17,273,682
Coal-tar products, crude—				
Benzene .....free, lbs.	172,528	1,223	701,901	21,937
Dead or creosote oil .....free, gls.	41,567,537	4,240,449	64,199,636	10,071,393
Naphthalene .....free, lbs.	3,144,332	54,029	21,036,458	578,563
Tar and pitch .....free, bbls.	24,853	58,517	14,775	46,825
Toluene .....free, lbs.	144,237	6,961	194,660	7,928
Other crude coal-tar products.....free	.....	380,122	.....	807,641
Intermediates—				
Acids—				
Carbolic .....dut., lbs.	686,304	102,282	61,561	14,752
All other .....dut., lbs.	73,859	17,561	18,944	79,517
All other intermediate products...dut., lbs.	1,376,566	302,310	2,598,281	513,692
Finished products—				
Alizarin and derivatives.....dut., lbs.	479,858	701,934	290,130	403,612
Anthracene and carbazol colors and dyes dut., lbs.	[2]17,697	[2]26,002	8,319	8,976
Color lakes .....dut., lbs.	[2]239	[2]262	4,263	3,635
Indigo —				
Natural .....dut., lbs.	12,450	13,848	10,473	5,216
Synthetic .....dut., lbs.	72,218	101,448	631	458
Dyes, colors, stains, etc.....dut., lbs.	[2]872	[2]1,482	13,809	18,174
Colors or dyes, n.e.s.....dut., lbs.	[2]2,553,576	[2]3,762,841	.....	.....
Colors, dyes, stains, color acids, and color bases, n.e.s.....dut., lbs.	[2]738,359	[2]1,006,924	3,252,382	4,424,311
Coal-tar medicinals .....dut., lbs.	.....	208,670	68,127	212,255
Explosives .....dut., lbs.	[2]5,470	[2]6,843	2,042	3,494
Other finished coal-tar products....dut., lbs.	.....	19,961	14,885	51,303
Medicinal and pharmaceutical preparations—				
Alkalies, alkaloids, preparations, mixtures, and combinations of .....dut., lbs.	[1]5,460,314	[1]1,323,661	.....	.....
Medicinal preparations, n.e.s.....dut., lbs.	[1]1,305,111	[1]372,674	.....	.....
Other chemical compounds, n.e.s.....dut., lbs.	.....	[1]685,755	.....	.....
Morphine, salts and derivatives of, and preparations of opium .....dut., ozs.	[2]200	[2]361	1,083	3,842
Quinine and other alkaloids and salts from cinchona bark .....free, ozs.	[1]1,995,295	[1]824,682	.....	.....
Quinine sulphate .....free, ozs.	[2]869,318	[2]423,240	2,992,828	1,493,158
All other .....free, ozs.	[2]825,228	[2]275,195	2,056,753	698,695
Caffeine and salts of .....dut.	.....	[2]11,535	.....	994
Strychnine and derivatives of.....dut., ozs.	[2]39,987	[2]30,827	122,254	96,662
Other alkaloids and salts and derivatives of.. dut.	.....	[2]5,984	.....	23,344
Biological medicinals—				
Antitoxines, serums, vaccines, etc., and blistering insects .....free	.....	[2]8,053	.....	7,697
Enzyme preparations .....dut., lbs.	[2]7,515	[2]1,715	42,008	3,504
Other medicinals .....dut.	.....	[2]483,916	.....	1,916,840
Preparations in capsules, pills, tablets, etc. dut., lbs.	[2]82,216	[2]113,614	248,961	295,863
All other preparations, n.e.s.....dut., lbs.	[2]441,553	[2]201,179	1,764,293	903,701
Other chemicals—				

CHAS. PFIZER & CO.

INCORPORATED

ESTABLISHED 1849

Manufacturing Chemists

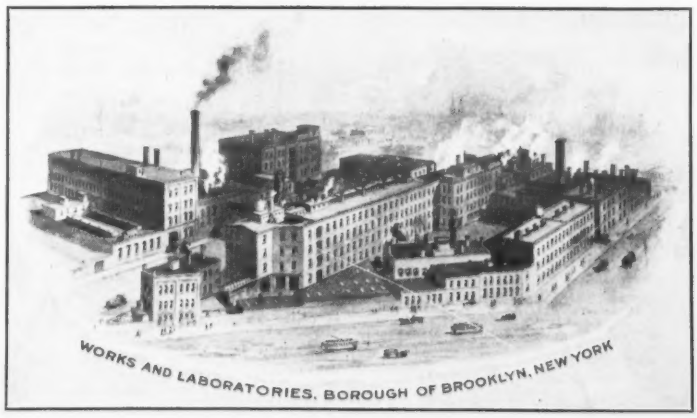
NEW YORK

Citric Acid, Crystals, Granulated and Powdered
Tartaric Acid, Crystals, Granulated and Powdered
Cream Tartar, Powdered and Crystals
Rochelle Salt, Powdered and Crystals
Seidlitz Mixture
Borax, Crystals, Granulated and Powdered
Boric Acid, Crystals, Granulated and Powdered
Camphor Refined

Phenolphthalein
Bismuth Subnitrate
Minor Bismuth Preparations
Potassium Iodide, Crystals and Granulated
Iodine Resublimed
Iodoform
Minor Iodides
Chloroform
Potassium Citrate
Sodium Citrate
Tartar Emetic
Antimony Lactate Solution

Calomel
Corrosive Sublimate
Red Precipitate
White Precipitate
Minor Mercurial Preparations
Strychnine and Salts thereof
Iron and Ammon. Cit., U. S. P.
Iron and Ammon. Cit., Green Scales
Other Scale Salts of Iron
Ferric Ammonium Oxalate
Ferric Sodium Oxalate
Ferric Oxalate Scales

Also a general line of Chemicals for Medicinal, Photographic, Blue Print and various Technical Purposes



WORKS AND LABORATORIES, BOROUGH OF BROOKLYN, NEW YORK

		Twelve months ended December 31			
		1922		1923	
		Quantity.	Value.	Quantity.	Value.
Acids and anhydrides—					
Arsenious acid or white arsenic	free, lbs.	[1]1,740,963	[1]132,568	21,149,545	1,985,400
Citric	dut., lbs.	[1]112,686	[1]40,442	820,370	250,845
Formic	dut., lbs.	[1]255,397	[1]18,113	1,275,705	95,405
Oxalic	dut., lbs.	1,294,236	106,627	2,629,297	206,861
Sulphuric	free, lbs.	[1]1,260,000	[1]12,222	23,508,494	198,083
Tartaric	dut., lbs.	[1]628,972	[1]171,567	2,653,919	641,597
All other	free, lbs.	2,430,128	87,296	1,716,584	17,916
	dut., lbs.	5,480,222	1,242,983	2,580,966	347,639
Alcohols, including fusel oil	dut.	.....	[1]14,867	.....	1,239,358
Fusel oil	dut., lbs.	81,662	[1]16,448	.....	.....
Ammonium compounds—					
Chloride of ammonia	dut., lbs.	.....	.....	6,056,902	325,179
Nitrate	dut., lbs.	[1]7,836,714	[1]417,159	19,915,953	1,297,924
Perchlorate	dut., lbs.	[1]259,938	[1]14,818	1,111,502	36,714
All other	dut., lbs.	8,299,267	450,764	1,874,439	104,977
Arsenic sulphide (realgar and epiment)	free, lbs.	7,630,519	472,044	2,194,540	268,311
Barium compounds	dut., lbs.	[1]3,854,736	[1]148,235	7,954,717	298,737
Calcium compounds—					
Acetate, carbide, chloride crude, and nitrate	free, lbs.	[1]52,376,677	[1]1,784,559	.....	.....
Acetate, crude and chloride	free, lbs.	[1]2,242,605	[1]36,023	6,461,792	48,539
Cobalt oxide	dut., lbs.	[1]47,950	[1]94,590	258,574	511,903
Lime—					
Chlorinated, or bleaching powder	dut., lbs.	8,534,709	135,673	1,395,545	50,532
Citrate of	dut., lbs.	15,981,682	2,222,795	1,672,604	200,143
Glycerin	dut., lbs.	3,657,068	354,369	15,142,802	1,507,664
Iodine, crude	lbs.	352,557	1,024,609	274,238	887,460
Potassium compounds—					
Cyanide	free, lbs.	3,088,108	253,072	2,464,462	199,261
Carbonate	free, lbs.	[1]8,227,817	[1]299,418	.....	.....
	dut., lbs.	[1]1,780,508	[1]86,722	10,949,977	579,095
Ferrocyanide	dut., lbs.	290,089	70,847	391,577	88,088
Hydrate	free, lbs.	[1]11,537,057	[1]643,891	.....	.....
Hydroxide	dut., lbs.	[1]2,104,986	[1]120,765	10,857,354	686,710
Nitrate, crude or saltpeter	free, tons	2,438	141,521	2,747	137,228
Bitartrate, crude, argols or wine lees	dut., lbs.	22,965,618	1,709,184	19,803,621	1,512,011
Other potassium compounds, n.e.s.	dut., lbs.	12,179,888	757,404	23,171,018	1,684,311
Sodium compounds—					
Cyanide	free, lbs.	15,705,924	1,306,071	29,645,744	2,435,299
Ferrocyanide	dut., lbs.	[1]1,198,064	[1]220,506	1,147,171	186,601
Nitrite	dut., lbs.	[1]1,548,738	[1]62,407	4,685,501	209,026
All other, n.e.s.	free, lbs.	.....	74,759	29,873,807	466,666
	dut., lbs.	.....	1,129,258	.....	940,854
All other chemicals, n.e.s.	free	.....	5,043,015	.....	1,288,547
	dut.	.....	4,705,919	.....	3,447,734
Paints, pigments and varnishes (total)		.....	3,674,396	.....	3,306,920
All, except zinc pigments	dut.	.....	[1]1,736,723	.....	.....
Mineral earth pigments—					
Ochers and siennas	dut., lbs.	[1]5,350,906	[1]97,956	21,022,483	343,938
Other	dut., lbs.	[1]19,108,814	[1]255,532	78,657,524	994,704

		Twelve months ended December 31			
		1922		1923	
		Quantity.	Value.	Quantity.	Value.
Chemical pigments—					
Zinc pigments	dut., lbs.	27,845,363	1,290,329	22,690,529	948,018
All other	dut.	.....	[1]155,206	.....	551,623
Paints, stains and enamels	dut., lbs.	[1]443,815	[1]113,684	1,016,684	389,337
Varnishes	dut., gls.	[1]6,166	[1]24,969	21,621	79,300
Fertilizers (total)	tons	1,340,440	45,122,574	1,857,866	63,881,361
Nitrogenous—					
Calcium cyanide	free, tons	41,807	2,236,474	68,532	3,672,398
Calcium nitrate	free, tons	[1]1,097	[1]46,508	9,211	366,340
Sodium nitrate	free, tons	542,464	26,152,723	891,679	41,955,770
Sulphate of ammonia	free, tons	[1]4,542	[1]235,746	.....	.....
	dut., tons	[1]348	[1]24,426	3,539	204,624
All other	free, tons	45,653	1,787,442	117,501	3,869,232
Phosphates—					
Bone phosphates	free, tons	32,274	860,683	56,326	1,732,749
Other phosphate materials	free, tons	[1]4,831	[1]70,912	11,010	149,895
Potash fertilizers—					
Chloride, crude (muriate of potash)	free, tons	161,546	5,549,852	135,497	4,116,180
Sulphate, crude	free, tons	57,719	2,429,416	63,578	2,576,469
Kainit	free, tons	149,857	1,023,330	160,211	924,131
Manure salts	free, tons	195,005	1,948,608	273,344	2,957,503
Other potash-bearing substances	free, tons	[1]3,295	[1]41,740	32,826	412,111
All other fertilizers	free, tons	100,002	2,714,714	34,612	943,959
Soap—					
Castile	dut., lbs.	2,703,888	341,298	1,861,576	187,228
Toilet	dut., lbs.	[1]219,393	[1]73,497	903,314	280,999
All other	dut., lbs.	2,125,398	498,582	2,572,248	257,149
Perfumery and cosmetics	dut.	.....	[1]5,773,884	.....	.....
Perfumery, including cologne	dut., lbs.	[1]389,965	[1]937,971	1,138,417	2,366,987
Bay rum, toilet waters and floral waters	dut., lbs.	[1]98,857	[1]27,920	320,060	64,935
Perfume materials	free, lbs.	[1]12,122	[1]274,736	61,540	1,179,435
	dut.	.....	[1]494,698	.....	1,290,382
Cosmetics, powders, creams, etc.	dut., lbs.	[1]375,775	[1]235,636	1,348,584	711,050
Cellulose products	dut., lbs.	.....	676,895	1,322,743	1,831,783
Blacking and polishes	dut., lbs.	[1]55,207	[1]9,732	308,800	59,982

Group 9—Miscellaneous

Philosophical and scientific instruments, etc.	dut., lbs.	[1]40,063	[1]108,264	.....	616,453
	free	.....	[1]175,836	.....	.....
Bristles—					
Crude, not sorted, etc.	free, lbs.	23,034	9,776	44,531	27,358
Sorted, bunched or prepared	dut., lbs.	4,085,252	5,345,517	6,518,472	10,443,698
Brushes	dut., number	[1]33,927,953	[1]1,610,429	.....	.....
Tooth	dut., number	[1]5,589,545	[1]303,000	33,725,899	1,634,694
Other toilet	dut., number	[1]3,382,052	[1]162,483	12,864,356	621,073
Paint	dut., number	[1]1,326,078	[1]24,646	8,815,540	115,974

[1] January 1 to September 21, 1922. [2] Beginning September 22, 1922.

52-Year Record of Exports from the United States, 1871-1923

The official record of exports from the United States is not as complete as that of the imports. We have made a compilation of available domestic export figures, and the following tables are as complete as records permit. Beginning with 1923 the figures are for calendar years.

Abrasives, Wheels, Emery, and Other

	Pounds.	Dollars.
1891	.....	34,651
1901	.....	172,766
1913	.....	736,879
1914	.....	1,636,265
1915	.....	3,846,101
1916	.....	4,697,443
1917	.....	3,323,219
1918	.....	2,546,991
1919	.....	2,439,021
1920	.....	644,151
1921	2,050,502	571,733
1922	1,653,719	
1923		

Abrasives, Artificial, Steel Wool, Abrasive Paper, Etc.

	Pounds.	Dollars.
1922	7,198,459	1,519,303
1923	9,556,933	2,020,866

Acid, Acetic

	Pounds.	Dollars.
1922	5,079,880	367,365
1923	763,830	94,025

Acid, Boric

	Pounds.	Dollars.
1922	1,560,996	189,581
1923	891,670	104,912

Acid, Carbolic

	Pounds.	Dollars.
1918	8,688,554	4,236,288
1919	5,810,314	2,173,171
1920	2,223,205	420,101
1921	659,890	86,297
1922	111,479	19,008
1923	232,830	34,389

Acid, Nitric

	Pounds.	Dollars.
1918	961,494	101,040
1919	737,273	86,788
1920	820,517	105,882
1921	267,119	48,552
1922	234,736	27,587

Not stated after 1922.

Acid, Picric

	Pounds.	Dollars.
1918	53,688,240	33,902,957
1919	12,507,483	6,565,473
1920	8,073	8,430
1921	3,730	2,142
1922	466	288

Not stated after 1922.

Acid, Sulphuric

	Pounds.	Dollars.
1913	9,790,532	89,783
1914	12,131,750	125,892
1915	46,771,510	516,436
1916	82,020,246	1,990,532
1917	58,604,048	963,888
1918	67,654,722	1,119,907
1919	47,413,636	805,430
1920	32,334,393	778,287
1921	18,600,704	446,380
1922	13,979,310	285,560
1923	8,243,767	169,161

Acids, All Other

	Pounds.	Dollars.
1871	.....	57,730
1881	.....	39,240
1891	.....	121,851
1901	.....	198,233
1913	.....	364,347
1914	.....	357,035
1915	.....	2,611,741
1916	.....	22,717,335
1917	.....	54,725,124
1918	.....	5,673,707
1919	.....	4,573,969
1920	.....	5,297,987
1921	.....	3,029,332
1922	.....	1,019,674
1922	10,393,865	680,300
1923	10,671,802	837,835

Alcohol, Wood and Denatured

	Gallons.	Dollars.
1901	919,504	476,582
1913	1,837,173	788,143
1914	1,598,776	652,486
1915	944,374	438,846
1916	1,472,258	857,161
1917	825,334	646,939
1918	2,538,001	2,070,026
1919	1,339,204	1,299,340
1920	687,008	775,117
1921	467,763	1,031,686
1922	737,050	566,445
1923	1,207,023	1,275,284

Alcohol, Other

	Proof gallons.	Dollars.
1891	418,935	180,290
1901	237,509	97,633
1913	151,232	58,346
1914	187,845	67,728
1915	200,455	108,985
1916	24,433,243	8,784,742
1917	51,941,634	16,027,867
1918	8,351,142	4,619,878
1919	11,884,383	6,145,115
1920	27,376,167	10,455,247
1921	14,635,394	7,569,381
1922	3,180,013	943,774
1923	404,837	170,155

Aluminum, Ingot Metal and Alloys

	Pounds.	Dollars.
1918	21,207,641	8,611,447
1919	11,363,094	4,194,099
1920	7,834,746	2,330,073
1921	1,989,569	614,142
1922	1,442,580	282,084
1923	1,169,753	236,878

Aluminum Sulphate

	Pounds.	Dollars.
1922	26,450,657	388,447
1923	35,490,560	504,292

Ammonia and Ammonium Compounds

	Pounds.	Dollars.
1922	2,747,480	990,111
1923	11,343,804	1,202,976

Aniline Oils and Salts

	Pounds.	Dollars.
1922	341,220	65,602
1923	497,457	95,023

Antitoxins, Serums and Vaccines

	Cub. C.	Dollars.
1922	.....	399,617
1923	11,151,218	418,711

Asbestos, Unmanufactured

	Tons.	Dollars.
1917	219	21,851
1918	767	117,413
1919	520	58,448
1920	1,079	223,560
1921	711	139,918
1922	329	43,302
1923	607	48,525

Ashes, Pot and Pearl

	Pounds.	Dollars.
1871	1,474,954	103,249
1881	1,636,839	141,463
1891	430,582	24,432
1901	1,043,817	56,072

Stated as "Potash, All Other," for later years.

Asphalt and Bitumen, Unmanufactured

	Tons.	Dollars.
1914	49,831	1,131,086
1915	28,553	616,240
1916	42,754	830,946
1917	34,423	712,051
1918	22,065	548,745
1919	22,754	729,662
1920	47,024	1,386,770
1921	43,630	1,290,467
1922	43,002	1,183,080
1923	64,846	1,500,869

Asphalt and Bitumen, Manufactures of

	Pounds.	Dollars.
1914	.....	362,347
1915	.....	400,154
1916	.....	510,290
1917	.....	554,665
1918	.....	489,038
1919	.....	673,231
1920	.....	682,753
1921	.....	781,947
1922	29,514,018	390,925
1923	60,969,483	951,137

Baking Powder

	Pounds.	Dollars.
1901	822,540	292,081
1914	2,725,964	790,274
1915	3,376,780	881,879
1916	3,969,985	860,118
1917	4,836,844	1,028,352
1918	6,022,402	1,838,808
1919	4,257,487	1,257,805
1920	5,595,126	1,648,906
1921	3,491,666	1,229,400
1922	3,612,397	1,496,446
1923	4,155,725	1,762,476

Bauxite Concentrates

	Tons.	Dollars.
1915	11,949	531,404
1916	19,317	929,309
1917	18,495	1,118,777
1918	21,313	1,463,842
1919	18,187	1,397,200
1920	20,890	1,709,390
1921	13,081	1,066,732
1922	19,617	961,208
1923	78,500	3,380,486

Beeswax

	Pounds.	Dollars.
1881	164,090	40,203
1891	120,548	30,027
1901	140,276	39,464
1914	96,215	27,292
1915	181,328	57,971
1916	147,772	48,252
1917	383,667	131,691
1918	189,871	68,117
1919	134,508	67,237
1920	641,357	287,051
1921	189,616	80,497
1922	100,674	27,699
1923	118,456	36,218

Benzol

(See "Coal Tar Distillates.")

Blacking and Polishes, Shoe Polishes

	Pounds.	Dollars.
1922	5,173,840	1,188,552
1923	5,435,300	1,213,631

Blacking and Polishes, All Other

	Pounds.	Dollars.
1915	.....	503,629
1916	.....	784,552
1917	.....	1,036,234
1918	.....	1,009,100
1919	.....	2,077,319
1920	.....	2,845,110
1921	.....	2,072,963
1922	3,913,206	567,932
1923	2,620,038	446,095

Bones, Hoofs, and Horns, Unmanufactured

	Pounds.	Dollars.
1871	.....	55,629
1881	.....	73,807
1891	.....	335,716
1901	.....	218,680
1913	.....	102,705
1914	.....	61,180
1915	.....	16,182
1916	.....	37,558
1917	.....	39,804
1918	.....	338,642
1919	.....	330,677
1920	.....	374,136
1921	.....	118,021
1922	5,297,306	261,292
1923	6,389,035	339,243

Bone Black

	Pounds.	Dollars.
1922	2,056,593	117,014
1923	3,018,530	181,383

Borax

	Pounds.	Dollars.
1920	10,943,110	905,617
1921	4,368,880	385,650
1922	10,094,724	545,601
1923	40,498,964	1,606,054

Brushes, Toilet

	Number.	Dollars.
1922	1,143,457	280,362
1923	1,775,383	405,187

Brushes, Paint

	Number.	Dollars.
1922	404,767	133,924
1923	767,582	220,672

Brushes, Other

	Number.	Dollars.
1915	.....	604,916
1916	.....	1,132,262
1917	.....	863,630
1918	.....	984,085
1919	.....	1,324,367
1920	.....	1,710,678
1921	.....	1,878,901
1922	2,108,151	299,498
1923	2,174,962	357,300

Calcium Carbide

	Pounds.	Dollars.
1913	33,419,375	990,027
1914	32,845,649	962,040
1915	35,772,867	1,097,952
1916	37,873,692	1,211,267
1917	31,278,971	1,001,861
1918	28,814,176	1,327,864
1919	21,278,167	1,537,984
1920	21,164,404	1,040,754
1921	20,147,753	967,024
1922	12,477,237	629,164
1923	8,244,408	384,166

Candles

	Pounds.	Dollars.
1871	2,321,959	348,368
1881	1,780,572	210,842
1891	1,546,079	149,112
1901	2,432,815	236,547
1913	2,595,912	246,274
1914	3,047,756	283,018
1915	4,230,026	417,345
1916	6,120,695	575,650
1917	6,576,632	749,369
1918	5,530,017	900,514
1919	9,305,651	1,901,536
1920	7,691,420	1,494,616
1921	3,252,838	708,149
1922	2,161,076	322,491
1923	1,894,735	276,634

Cement, Hydraulic

	Barrels (380 lbs.).	Dollars.
1901	218,240	438,915
1914	2,391,453	2,382,282
1915	2,361,451	3,241,686
1916	2,740,596	3,780,564
1917	2,345,952	4,111,550
1918	2,575,126	5,896,905
1919	1,938,223	5,871,902
1920	3,179,549	9,599,384
1921	2,023,167	7,700,081
1922	1,018,760	3,100,459
1923	1,001,688	2,944,174

Chalk, Manufactures of

	Pounds.	Dollars.
1914	.....	40,154
1915	.....	51,175
1916	.....	60,417
1917	.....	105,202
1918	.....	186,711
1919	.....	273,741
1920	.....	373,200
1921	.....	467,993
1922	.....	199,640
1922	1,272,354	209,018
1923	1,225,340	150,679

E. K. SPEIDEN, President

L. M. WHITFIELD, Vice-President

MAGNESIUM CHLORIDE
MAGNESITE
WOODFLOUR
ASBESTOS
COLORS (FLOOR)
TALC
SILICA
WATERPROOFING
HYDROMETERS
DASH, ETC.

SPEIDEN-WHITFIELD CO., INC.
Industrial Chemicals
150 NASSAU STREET
NEW YORK

CABLE ADDRESS
"SPEIDWHIT"
CODE A. B. C.
5th EDITION
IMPROVED
—
BEEKMAN
6163
9563

March 20, 1924.

To Users of Magnesite,
Anywhere,
U. S. A.

Gentlemen:

You will be interested to know a definite attempt has been made by some of the Greek suppliers of Magnesite to corner the market here.

We have been informed that only the people in Holland (where the Grecian material is ground) who will bind themselves to use the material of the combine, will be allowed to receive any Grecian Magnesite. To use the words of the Grecian Company's representative, "others must retire from the field." At the time the same intimation was given to us regarding ourselves - our offence being that we handled California material - which we insisted, and do insist, shall be our prerogative.

This is to assure you that notwithstanding this effort to create a monopoly, to the detriment of the consumer, we have definite connections which enable us to continue to supply the best scientifically prepared Grecian Magnesite, as well as the "Sierra" California material as heretofore.

Our business has been, and will be, to furnish Magnesite - but only of recognized standard quality; we have no inferior goods to offer at any price.

We solicit your inquiries, and remain,

Yours very truly,

SPEIDEN-WHITFIELD CO., INC.

Exports from the United States

Chewing Gum

		Dollars.
1901	.....	11,686
1914	.....	178,630
1915	.....	281,433
1916	.....	574,423
1917	.....	1,084,732
1918	.....	1,896,135
1919	.....	1,794,880
1920	.....	2,617,483
1921	.....	1,510,679
1922	1,911,892	892,380
1923	2,927,778	1,385,610

Clays, Fire Clay

	Tons.	Dollars.
1871	.....	10,904
1881	.....	156
1891	.....	.....
1901	.....	2,330
1917	44,098	201,398
1918	50,529	310,527
1919	44,002	296,108
1920	32,076	257,443
1921	45,574	387,926
1922	19,241	131,910
1923	44,692	303,675

Clays, All Other

	Tons.	Dollars.
1871	.....	.....
1881	.....	8,762
1891	.....	26,857
1901	.....	146,131
1917	26,078	169,543
1918	22,293	189,146
1919	23,752	196,943
1920	40,562	440,874
1921	45,505	583,938
1922	17,315	185,714
1923	31,107	329,192

Coal Tar

	Barrels.	Dollars.
1913	121,168	152,273
1914	22,150	43,145
1915	21,317	39,647
1916	74,809	129,220
1917	62,674	145,574
1918	53,955	147,765
1919	60,672	201,653
1920	81,640	192,294
1921	128,103	287,300
1922	76,653	159,078
1923	513,834	1,694,494

Coal Tar Colors, Dyes and Stains

	Pounds.	Dollars.
1922	8,352,437	4,001,145
1923	17,924,536	5,565,371

Coal Tar Distillates—Benzol

	Pounds.	Dollars.
1918	25,400,852	2,152,315
1919	24,402,278	1,236,282
1920	17,253,314	732,836
1921	66,622,862	3,182,721
1922	55,179,363	1,978,776
1923	111,336,768	3,647,600

Coal Tar Distillates—All Other

	Pounds.	Dollars.
1918	.....	5,620,851
1919	.....	3,748,370
1920	.....	3,618,424
1921	.....	4,101,129
1922	6,289,029	154,983
1923	9,060,704	300,257

Coal Tar—Medicinal and Pharmaceutical Preparations

	Pounds.	Dollars.
1891	.....	1,880,728
1901	.....	3,440,177
1913	.....	7,110,493
1914	.....	6,721,978
1915	.....	7,130,379
1916	.....	8,397,971
1917	.....	8,613,202
1918	.....	10,190,188
1919	.....	15,277,037
1920	.....	20,124,561
1921	.....	18,038,328
1922	554,166	224,546
1923	237,975	164,160

Coal Tar, Photographic Chemicals

	Pounds.	Dollars.
1922	248,119	103,853
1923	214,160	96,317

Copper, Ores, Concentrates and Unrefined Copper

	Pounds.	Dollars.
1916	4,921,089	1,137,770
1917	18,290,897	5,509,818
1918	26,550,026	6,920,687
1919	1,774,844	483,590
1920	2,929,227	555,615
1921	371,096	85,361
1922	295,935	34,873
1923	339,212	41,775

Copper, Sulphate of (Blue Vitriol)

	Pounds.	Dollars.
1901	49,223,183	2,324,738
1913	5,052,680	262,561
1914	7,375,775	330,007
1915	10,238,808	445,580
1916	17,978,242	2,469,437
1917	28,128,190	3,012,954
1918	15,164,078	1,431,262
1919	13,223,923	1,339,945
1920	4,511,284	373,834
1921	4,297,378	297,395
1922	4,809,948	227,019
1923	2,290,206	130,879

Cork, Disks, Washers and Wafers

	Gross.	Dollars.
1922	.....	109,432
1923	2,364,279	131,316

Cork Stoppers

	Pounds.	Dollars.
1922	300,935	123,420
1923	585,083	171,643

Cork, Other Manufactures of

	Pounds.	Dollars.
1891	.....	7,103
1901	.....	36,717
1913	.....	339,436
1914	.....	.....
1915	.....	211,795
1916	.....	455,424
1917	.....	541,579
1918	.....	847,377
1919	.....	1,150,524
1920	.....	1,140,517
1921	.....	1,757,636
1922	1,660,650	266,603
1923	2,051,950	282,636

Creams, Rouges and Other Cosmetics

	Pounds.	Dollars.
1922	2,071,263	966,133
1923	2,148,663	1,096,747

Crucibles, Clay and Graphite

	Number.	Dollars.
1922	355,155	92,273
1923	463,265	132,228

Dentifrices

	Pounds.	Dollars.
1922	4,026,935	2,403,497
1923	2,983,088	2,439,427

Dextrine, or British Gum

	Pounds.	Dollars.
1922	16,241,674	536,027
1923	16,206,340	626,486

Druggists' Rubber Sundries

	Pounds.	Dollars.
1918	.....	884,245
1919	.....	1,019,170
1920	.....	1,530,326
1921	.....	1,512,852
1922	795,793	871,465
1923	787,590	774,443

Dyes and Dyestuffs

		Dollars.
1871	.....	655,115
1881	.....	626,749
1891	.....	660,590
1901	.....	394,278
1913	.....	347,656
1914	.....	356,919
1915	.....	1,775,925
1916	.....	5,102,002
1917	.....	11,710,887

Stated separately after 1917; see following classes.

Dye Extracts—Logwood

	Pounds.	Dollars.
1918	.....	2,339,480
1919	.....	1,556,023
1920	.....	1,832,231
1921	.....	1,471,040
1922	2,626,103	448,713
1923	1,954,098	264,207

Dye Extracts—All Other

	Pounds.	Dollars.
1918	.....	7,284,110
1919	.....	6,125,394
1920	.....	6,829,937
1921	.....	3,571,309
1922	2,614,110	459,861
1923	2,298,788	322,663

Eggs, in the Shell

	Doz.	Dollars.
1871	5,017	1,428
1881	80,146	13,776
1891	363,116	64,259
1901	3,692,875	676,232
1918	18,969,167	7,167,134
1919	28,384,783	12,444,345
1920	38,326,986	19,149,536
1921	26,960,098	11,251,081
1922	34,620,050	9,094,018
1923	30,659,262	8,430,297

Eggs and Egg Yolks, Frozen, Dried, or Canned

		Dollars.
1901	.....	1,610
1913	.....	67,854
1914	.....	47,968
1915	.....	88,865
1916	.....	210,255
1917	.....	72,491
1918	.....	525,880
1919	.....	341,304
1920	.....	282,198
1921	.....	201,832
1922	.....	130,944
1923	.....	49,193

Explosives, Dynamite

	Pounds.	Dollars.
1915	7,712,999	924,079
1916	19,561,654	3,656,653
1917	16,254,201	3,488,143
1918	18,911,668	4,991,508
1919	13,525,096	3,190,447
1920	12,566,057	2,519,512
1921	11,878,600	2,451,856
1922	12,312,575	2,254,690
1923	16,982,676	2,482,562

Explosives, Gunpowder, Smokeless

	Pounds.	Dollars.
1922	925,480	369,848
1923	1,699,406	567,519

Explosives, Gunpowder, All Other

	Pounds.	Dollars.
1871	391,300	95,397
1881	1,694,483	275,579
1891	733,834	88,676
1901	1,463,499	193,345
1915	7,686,480	5,091,442
1916	212,821,076	173,736,374
1917	404,668,874	330,664,927
1918	337,505,953	257,190,883
1919	109,613,165	85,812,212
1920	1,721,991	710,397
1921	43,485,291	38,286,158
1922	410,705	129,216
1922	402,401	186,705

Fertilizers, Ammonia, Sulphate of

	Tons.	Dollars.
1920*	17,489	2,264,387
1921	65,915	7,620,130
1922	168,077	8,720,775
1923	150,544	10,874,627

Fertilizers, Guano

	Tons.	Dollars.
1871	1,203	35,000
1881	959	29,581

Not separately stated for later years.

Fertilizers, Phosphates, Crude

	Tons.	Dollars.
1901	624,966	5,048,393

Stated separately for later years.

Fertilizers, Phosphate High-Grade Hard Rock

	Tons.	Dollars.
1913	494,200	4,942,000
1914	475,335	4,753,350
1915	46,050	460,050
1916	44,330	429,130
1917	14,963	150,505
1918	24,047	174,373
1919	80,834	715,104
1920	351,352	3,884,147
1921	274,953	4,087,512
1922	202,694	2,687,405
1923	194,339	2,447,501

Fertilizers, Phosphate Rock, Land Pebble

	Tons.	Dollars.
1913	777,898	4,577,962
1914	1,000,630	5,857,969
1915	222,472	1,276,759
1916	255,206	1,324,877
1917	178,094	705,251
1918	110,909	456,383
1919	78,027	448,855
1920	395,581	2,991,371
1921	651,749	5,684,516
1922	516,635	3,708,250
1923	630,565	3,273,006

Fertilizers, Phosphate Rock, All Other

	Tons.	Dollars.
1913	794	4,127
1914	1,906	6,516
1915	887	5,888
1916	350	3,058
1917	8,108	255,389
1918	22,623	198,778
1919	30,026	308,653
1920	30,300	419,667
1921	16,862	277,747
1922	6,571	78,847
1923	2,647	21,664

Fertilizers, Prepared Mixtures

	Tons.	Dollars.
1922	14,416	690,972
1923	17,997	832,948

Fertilizers, Superphosphates (Acid Phosphates)

	Tons.	Dollars.
1917	6,508	67,489
1918	6,155	202,268
1919	51,405	1,548,198
1920	93,432	3,099,855
1921	29,954	1,311,054
1922	14,806	267,739
1923	42,156	541,460

Fertilizers, All Other

	Tons.	Dollars.
1871	.....	264,837
1881	.....	583,360
1891	231,915	2,182,274
1901	18,760	377,567
1913	74,834	1,875,999
1914	61,601	1,360,903
1915	89,224	2,128,190
1916	124,979	3,580,543
1917	216,222	6,056,887
1918	89,190	4,808,337
1919	106,656	6,384,432
1920	241,215	20,583,984
1921	108,431	5,988,308
1922	41,529	1,539,512
1923	45,073	1,921,972

Ferrovanadium

	Pounds.	Dollars.
1915	755,905	641,792
1916	1,113,076	1,018,121
1917	2,613,387	2,831,669
1918	2,089,347	2,582,670
1919	637,604	770,862
1920	184,250	253,579
1921	450,070	916,147
1922	69,952	84,827
1923	51,416	64,713

Fire Extinguishers

	Number.	Dollars.
1917	.....	895,591
1918	.....	1,688,963
1919	.....	1,055,502
1920	.....	887,484
1921	.....	757,572
1922	54,952	272,739
1923	56,071	328,652

Flavoring Extracts and Fruit Juices

	Pounds.	Dollars.
1913	.....	133,990
1914	.....	106,892
1915	.....	136,742
1916	.....	466,914
1917	.....	581,550
1918	.....	1,018,102
1919	.....	949,726
1920	.....	1,425,380
1921	.....	1,236,135
1922	2,319,469	761,284
1923	2,041,506	678,189

Fly Paper and Fly Traps

	Pounds.	Dollars.
1914	.....	217,857
1915	.....	115,921
1916	.....	75,155
1917	.....	77,425
1918	.....	102,979
1919	.....	146,690
1920	.....	245,111
1921	.....	283,455
1922	836,785	188,950
1923	754,328	174,140

Formaldehyde (Formalin)

	Pounds.	Dollars.
1918	.....	866,038
1919	.....	797,671
1920	.....	2,289,217
1921	.....	1,376,281
1922	1,940,576	209,386
1923	3,336,983	429,546

Gelatin

	Pounds.	Dollars.
1922	259,230	175,303
1923	261,712	179,596

German Silver

	Pounds.	Dollars.
1913	.....	65,362
1914	.....	38,691
1915	.....	30,690
1916	.....	273,826
1917	.....	410,295
1918	.....	270,703
1919	.....	304,514
1920	.....	426,768
1921	.....	720,343
1922	402,822	121,755
1923	481,178	145,518

Ginseng, Crude

	Pounds.	Dollars.
1871	114,221	119,385
1881	338,841	561,545
1891	.....	.....
1901	149,069	801,672
1914	224,605	1,832,686
1915	103,184	919,931
1916	256,082	1,597,508
1917	198,483	1,386,208
1918	259,892	1,717,548
1919	281,623	2,057,161
1920	220,970	2,847,900
1921	157,351	1,623,496
1922	189,999	1,605,257
1923	5,961,533	1,297,964

Glass Bottles, Vials, and Jars

	Pounds.	Dollars.
1914	.....	711,353
1915	.....	772,427
1916	.....	2,168,244
1917	.....	2,435,610
1918	.....	2,671,892
1919	.....	3,671,180
1920	.....	7,935,108
1921	.....	7,848,658
1922	43,538,075	2,359,546
1923	73,025,439	3,503,671

Glassware, Chemical

	Pounds.	Dollars.
1918	.....	153,937
1919	.....	198,033
1920	.....	207,366
1921	.....	294,672
1922	276,509	154,696
1923	247,443	175,801

Glass, Common Window

	Boxes (50 sq. ft.)	Dollars.
1891	.....	11,244
1901	.....	55,286
1913	.....	434,361
1914	.....	311,339
1915	489,288	1,443,113
1916	894,793	3,123,916
1917	942,648	3,483,596
1918	718,443	3,401,120
1919	908,962	6,058,427
1920	682,593	4,494,554
1921	357,578	2,396,185
1921	337,578	2,396,185
1922	25,431	151,109
1923	50,682	256,243

Glass, Plate, Unsilvered

	Square feet.	Dollars.
1913	165,129	58,830
1914	74,867	35,767
1915	2,730,046	831,727
1916	5,149,512	1,568,181
1917	6,117,955	2,223,329
1918	5,556,719	2,451,918
1919	8,584,758	4,912,896
1920	4,783,766	2,878,628
1921	3,053,579	2,188,104
1922	2,875,223	1,156,617
1923	1,981,767	843,792

Glucose (Corn Sirup)

	Pounds.	Dollars.
1881	821,937	28,587
1891	58,149,427	1,394,131
1901	204,209,974	3,113,898
1913	156,365,604	3,682,371
1914	162,680,378	3,766,284
1915	125,434,878	3,103,561
1916	148,523,098	3,772,860
1917	170,025,606	5,960,586
1918	80,970,744	4,949,159
1919	118,835,491	6,588,697
1920	219,425,235	13,831,817
1921	125,972,386	5,022,693
1922	258,447,893	6,109,862
1923	136,599,807	4,570,074

Glue, Animal

	Pounds.	Dollars.
1871	81,110	12,316
1881	367,069	59,038
1891	986,552	110,292
1901	2,703,400	254,477
1913	2,544,932	276,619
1914	2,351,770	258,611
1915	2,874,225	298,136
1916	4,946,298	531,390
1917	4,064,231	513,775
1918	4,901,764	837,679
1919	7,283,683	1,432,589
1920	13,039,002	2,186,756
1921	5,977,180	1,147,678
1922	2,708,674	418,759
1923	2,510,108	386,029

Glue, Vegetable

	Pounds.	Dollars.
1922	891,860	98,121
1923	774,877	85,451

Glycerin

	Pounds.	Dollars.
1918	21,045,991	10,587,531
1919	13,018,882	6,833,432
1920	2,257,623	522,611
1921	1,388,194	316,753
1922	3,625,999	508,807
1923	1,767,407	318,765

Grape Sugar (Corn Sugar)

	Pounds.	Dollars.
1881	12,438,247	422,828
1891	.....	.....
1913	41,783,642	970,025
1914	36,850,496	799,635
1915	33,027,630	781,672
1916	37,863,084	962,101
1917	44,947,709	1,398,145
1918	16,887,557	1,045,512
1919	17,394,892	875,355
1920	25,839,015	1,559,620
1921	15,981,960	836,858
1922	15,534,234	448,244
1923	7,227,656	268,613

Grease, Lubricating

	Pounds.	Dollars.
1914	.....	2,394,918
1915	.....	2,384,395
1916	.....	3,994,436
1917	.....	2,816,958
1918	.....	2,986,815
1919	.....	4,710,484
1920	.....	6,157,323
1921	.....	6,851,936
1922	58,073,940	3,148,916
1923	75,299,414	3,968,093

Grease, Soap Stock and Other

	Pounds.	Dollars.
1881	.....	725,321
1891	.....	2,038,886
1901	.....	3,339,948
1914	.....	5,046,959
1915	.....	4,266,097
1916	.....	3,156,568
1917	.....	3,405,227
1918	.....	2,612,488
1919	.....	2,981,497
1920	.....	8,994,603
1921	.....	4,602,801
1922	65,606,527	4,486,761
1923	64,490,856	5,638,206

Grease, Stearic

	Pounds.	Dollars.
1922	3,406,737	277,215
1923	3,520,096	333,196

Honey

	Pounds.	Dollars.
1871	.....	2,479
1881	.....	109,007
1891	.....	83,325
1901	.....	55,574
1914	.....	135,660
1915	.....	114,038
1916	.....	252,487
1917	.....	736,139
1918	16,090,672	2,509,570
1919	10,368,342	2,422,454
1920	3,659,198	655,482
1921	1,112,015	182,610
1922	2,406,922	261,899
1923	2,086,008	236,558

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Exports from the United States

Hops

	Pounds.	Dollars.
1871	3,273,653	316,288
1881	8,990,655	2,016,970
1891	8,736,080	2,327,474
1901	14,963,676	2,466,515
1914	24,262,896	6,953,529
1915	16,210,443	3,948,020
1916	22,409,818	4,383,929
1917	4,824,876	778,926
1918	3,494,579	993,773
1919	7,466,952	2,333,850
1920	30,779,508	17,716,222
1921	22,206,028	10,873,263
1922	19,521,877	4,851,623
1923	20,019,374	5,129,775

Infants' Food, Malted Milk, Etc.

	Pounds.	Dollars.
1918	.....	1,908,384
1919	.....	2,459,635
1920	.....	3,032,330
1921	.....	1,520,259
1922	2,480,589	720,587
1923	1,843,366	543,324

Ink, Printers'

	Pounds.	Dollars.
1901	.....	171,758
1915	.....	384,847
1916	.....	682,165
1917	.....	751,411
1918	.....	882,062
1919	.....	1,644,029
1920	.....	1,590,096
1921	.....	1,550,548
1922	8,655,372	993,352
1923	10,100,105	1,273,813

Ink, Writing

	Pounds.	Dollars.
1922	925,366	203,947
1923	1,413,484	257,909

Ink, All Other

	Pounds.	Dollars.
1871	.....	12,158
1881	.....	8,449
1891	.....	122,235
1901	.....	119,467
1915	.....	154,874
1916	.....	285,277
1917	.....	377,446
1918	.....	407,093
1919	.....	726,204
1920	.....	836,436
1921	.....	774,423
1922	389,124	125,031
1923	597,425	200,744

Instruments, Medical and Surgical

	Pounds.	Dollars.
		Dollars.
1913	.....	222,650
1914	.....	206,421
1915	.....	560,741
1916	.....	355,170
1917	.....	516,355
1918	.....	671,250
1919	.....	860,179
1920	.....	743,111
1921	.....	802,769
1922	179,277	288,864
1923	200,572	293,557

Instruments, Optical

		Dollars.
1915	.....	1,018,016
1916	.....	2,593,509
1917	.....	2,945,920
1918	.....	1,073,339
1919	.....	1,209,911
1920	.....	1,465,265
1921	.....	1,158,559
1922	.....	798,270
1923	.....	772,243

Iron, Pig—Ferromanganese

	Tons.	Dollars.
1901	16	1,296
1918	4,935	1,054,548
1919	2,184	448,899
1920	2,374	354,570
1921	3,335	608,369
1922	1,021	79,195
1923	4,295	151,224

Iron, Pig—Ferrosilicon

	Tons.	Dollars.
1918	8,599	917,686
1919	3,712	378,523
1920	398	24,578
1921	577	36,725
1922	463	23,493
1923	814	31,154

Lampblack

	Pounds.	Dollars.
1871	.....	25,980
1881	.....	51,682
1891	.....	.....
1901	.....	.....
1913	.....	505,748
1914	.....	421,548
1915	.....	368,825
1916	.....	521,463
1917	.....	917,303
1918	.....	1,111,265
1919	.....	1,102,767
1920	.....	1,959,208
1921	.....	1,829,987
1922	17,062,311	2,028,105
1923	29,020,743	4,723,166

Lard

	Pounds.	Dollars.
1871	80,037,297	10,563,010
1881	378,142,496	35,226,275
1891	498,345,927	34,414,323
1901	611,357,514	46,560,148
1913	519,025,384	58,187,336
1914	481,457,792	54,402,911
1915	475,531,908	52,440,133
1916	427,011,338	47,634,376
1917	444,769,540	77,608,913
1918	392,506,355	98,216,856
1919	724,771,383	210,175,908
1920	587,224,549	171,523,351
1921	746,157,356	131,329,199
1922	766,950,103	91,484,669
1923	1,035,381,571	130,171,943

Lard Compounds and Other Substitutes for Lard, Animal

	Pounds.	Dollars.
1901	23,359,966	1,449,878
1913	67,456,832	5,915,759
1914	58,303,564	5,480,139
1915	69,980,614	6,045,752
1916	52,843,311	5,147,434
1917	56,359,393	8,269,844
1918	31,278,382	6,633,640
1919	128,157,327	31,138,158
1920	44,195,842	11,850,311
1921	42,155,971	6,099,914
1922	16,286,960	1,952,187
1923	7,540,591	1,014,653

Lard Compounds and Other Substitutes for Lard, Vegetable

	Pounds.	Dollars.
1922	25,478,494	2,968,705
1923	9,616,686	1,338,834

Lard, Neutral

	Pounds.	Dollars.
1913	44,777,692	5,129,899
1914	29,323,786	3,270,236
1915	26,021,054	3,022,321
1916	34,426,590	4,050,397
1917	17,576,240	3,168,089
1918	4,258,529	1,074,903
1919	17,395,888	5,392,710
1920	23,292,627	6,916,279
1921	22,544,303	4,149,296
1922	20,497,006	2,586,706
1923	24,128,923	3,160,895

Lead, Pigs and Bars

	Pounds.	Dollars.
1901	6,354,924	285,158
1914	40,323,642	1,511,800
1916	193,024,221	7,926,604

Stated as following classes after 1915.

Lead, Pigs and Bars, from Domestic Ore

	Pounds.	Dollars.
1916	153,941,629	9,190,302
1917	159,673,425	11,721,920
1918	129,954,274	10,390,928
1919	32,483,910	2,360,495
1920	8,132,608	610,728
1921	2,702,864	225,414
1922	8,787,906	434,965
1923	4,110,185	265,589

Lead, Pigs and Bars, from Foreign Ore

	Pounds.	Dollars.
1916	52,265,948	2,114,692
1917	28,254,508	2,108,150
1918	84,260,273	6,965,492
1919	117,378,386	7,879,527
1920	61,648,426	3,596,098
1921	18,896,711	1,049,265
1922	74,685,868	3,472,574
1923	92,306,894	4,893,343

Lime

	Barrels.	Dollars.
1901	28,487	29,562
1913	284,685	214,543
1914	285,749	200,437
1915	169,078	117,644
1916	258,538	143,182
1917	168,521	126,266
1918	142,525	150,197
1919	68,015	108,047
1920	54,424	111,162
1921	64,568	143,068
1922	54,179	87,386
1923	117,887	170,289

Lime, Acetate

	Pounds.	Dollars.
1901	61,291,544	1,101,037
1913	80,579,838	2,221,427
1914	68,160,224	1,560,933
1915	24,673,247	486,405
1916	18,804,972	961,645
1917	12,959,222	607,847
1918	15,490,032	797,996
1919	9,369,940	401,476
1920	32,885,132	827,096
1921	12,845,700	350,635
1922	27,606,499	587,174
1923	21,951,287	806,857

Lime, Chlorinated (Bleaching Powder)

	Pounds.	Dollars.
1918	13,060,401	558,066
1919	15,639,918	450,145
1920	31,232,379	840,092
1921	37,425,093	1,146,378
1922	26,439,251	502,870
1923	28,828,428	525,436

Lithopone

	Pounds.	Dollars.
1922	3,231,722	169,982
1923	2,970,743	175,624

Magnesia, and Manufactures of

	Pounds.	Dollars.
1922	3,831,681	223,686
1923	5,391,319	337,114

Matches

	Pounds.	Dollars.
1871	.....	183,829
1881	.....	112,167
1891	.....	73,220
1901	.....	88,739
1917	.....	430,650
1918	.....	471,385
1919	.....	572,481
1920	.....	558,311
1921	.....	389,064
1922	1,184,648	217,821
1923	1,263,867	224,838

Metal Polishes

	Pounds.	Dollars.
1913	.....	127,898
1914	.....	162,504
1915	.....	167,277
1916	.....	225,783
1917	.....	214,800
1918	.....	192,691
1919	.....	262,043
1920	.....	451,934
1921	.....	346,104
1922	3,602,952	400,186
1923	2,264,728	281,674

Mica and Manufactures of

	Pounds.	Dollars.
1917	.....	88,651
1918	.....	71,285
1919	.....	79,581
1920	.....	155,918
1921	.....	305,345
1922	1,134,397	129,186
1923	1,804,342	182,162

Mucilage

		Dollars.
1901	.....	8,907
1913	.....	26,238
1914	.....	26,182
1915	.....	14,504
1916	.....	30,149

Included in following class after 1916.

Mucilage and Paste

	Pounds.	Dollars.
1917	.....	337,125
1918	.....	400,813
1919	.....	469,231
1920	.....	659,727
1921	.....	602,263
1922	2,305,354	261,565
1923	2,403,994	261,221

Naphthalene

	Pounds.	Dollars.
1922	109,514	12,657
1923	95,164	10,386

Nickel Oxide and Matte

	Pounds.	Dollars.
1901	5,990,676	1,510,508
1915	29,599,612	11,110,699
1916	25,649,995	9,876,403
1917	31,005,606	12,270,854
1918	18,818,212	7,680,502
1919	10,011,826	3,980,036
1920	2,392,614	1,144,083
1921	131,088	56,555
1922	9,897,775	1,147,993
1923	123,200	626

Oilcake, Cocoanut

	Pounds.	Dollars.
1920	224,313	6,404
1921	473,542	11,353
1922	7,960,197	106,057
1923	1,577,940	35,328

Oilcake, Corn

	Pounds.	Dollars.
1901	12,703,209	131,774
1913	76,262,845	1,131,330
1914	59,030,623	909,407
1915	45,026,125	798,206
1916	18,996,490	297,041
1917	15,757,612	289,547
1918	457,584	10,246
1919	562,300	16,193
1920	510,800	15,216
1921	1,794,653	29,989
1922	1,767,689	31,097
1923	15,746	502

Oilcake, Cottonseed

	Pounds.	Dollars.
*1901	1,258,687,317	13,119,968
1913	1,128,092,367	15,225,798
1914	799,974,252	11,007,441
1915	1,222,699,989	15,432,126
1916	980,664,572	14,749,489
1917	864,862,375	15,059,920
1918	11,045,263	213,542
1919	179,148,955	5,286,428
1920	338,927,893	11,951,112
1921	359,986,856	7,304,118
1922	331,311,165	7,066,212
1923	292,263,128	6,773,010

* Includes "Meal."

Oilcake, Linseed or Flaxseed

	Pounds.	Dollars.
1918	126,184,029	3,210,734
1919	161,088,337	4,753,170
1920	316,496,323	12,015,139
1921	373,079,051	9,624,882
1922	422,865,573	9,524,980
1923	532,617,638	11,058,112

Oilcake, Peanut

	Pounds.	Dollars.
1922	14,513,060	154,565
1923	672,000	11,760

Oilcake, all Other

	Pounds.	Dollars.
1922	3,172,090	55,161
1923	2,471,604	49,825

Oilcake and Meal, Flaxseed or Linseed

	Pounds.	Dollars.
1901	455,154,860	5,471,930
1913	838,119,654	12,982,423
1914	662,868,639	9,650,379
1915	524,794,434	9,048,061
1916	640,916,204	11,935,130
1917	536,976,419	10,255,355

Subdivided after 1917.

Oilcake and Meal, All Other

	Pounds.	Dollars.
1871	203,587,040	4,160,021
1881	448,559,413	6,284,364
1891	633,344,851	7,452,094
1913	6,886,270	104,701
1914	8,484,936	100,445
1915	9,906,878	126,414
1916	28,876,367	410,166
1917	21,558,676	398,681
1918	4,865,602	104,865
1919	60,444,481	1,820,674
1920	60,138,141	1,983,802
1921	9,373,533	234,330

Stated separately after 1921.

Oilcake Meal, Cottonseed

	Pounds.	Dollars.
1915	256,365,126	3,474,244
1916	77,256,997	1,149,478
1917	285,297,316	5,221,091
1918	33,635,530	770,192
1919	132,477,150	3,628,074
1920	110,644,890	3,933,800
1921	94,713,965	1,858,061
1922	117,656,019	2,416,446
1923	52,162,800	1,136,747

Oilcake Meal, Linseed or Flaxseed

	Pounds.	Dollars.
1918	25,215,948	684,614
1919	41,699,626	1,164,396
1920	19,839,589	705,668
1921	18,184,807	449,993
1922	17,997,571	404,906
1923	32,081,988	699,777

Oilcake Meal, all Other

	Pounds.	Dollars.
1922	9,058,338	138,170
1923	3,591,650	73,223

Oil, Fish, Cod and Codliver

	Gallons.	Dollars
1922	60,988	70,581
1923	33,415	59,752

Oil, Fish, all Other

	Gallons.	Dollars
1871	1,402,016	1,145,406
1881	912,380	532,839
1891	1,467,321	401,203
1901	991,870	293,004
1913	1,901,953	501,227
1914	448,366	125,575
1915	88,880	29,802
1916	146,643	69,411
1917	123,848	81,556
1918	455,629	446,589
1919	282,855	365,823
1920	1,310,478	1,172,624
1921	118,241	122,027
1922	4,697,895	195,071
1923	749,797	77,355

Quantity in pounds after 1921.

Oil, Animal, Lard

	Gallons.	Dollars.
1871	147,902	153,850
1881	836,255	558,576
1891	1,092,448	562,986
1901	766,783	438,645
1913	154,983	113,665
1914	110,199	87,364
1915	184,019	111,637
1916	421,969	309,836
1917	329,244	321,721
1918	91,585	126,672
1919	82,470	124,887
1920	124,231	195,252
1921	669,772	87,438
1922	699,791	80,043
1923	735,590	88,414

Oil, Animal, Neat's-foot

	Pounds.	Dollars.
1922	1,147,511	175,875
1923	1,144,812	198,171

Oil, Animal, Oleo

	Pounds.	Dollars.
1891	80,231,035	7,859,130
1901	161,651,413	11,846,373
1913	92,849,757	10,866,253
1914	97,017,065	10,156,665
1915	80,481,496	9,341,188
1916	102,645,914	12,519,115
1917	67,110,111	11,065,019
1918	56,603,388	12,152,787
1919	59,292,322	15,670,854
1920	74,529,494	21,153,000
1921	106,414,800	15,211,998
1922	109,386,571	11,464,837
1923	98,954,904	11,841,001

Oil, Animal, Whale

	Pounds.	Dollars.
1922	583,270	53,061
1923	722,530	31,138

Oil, Animal, Not Otherwise Specified

	*Gallons.	Dollars.
1871	80	137
1881	77,496	60,359
1891	512,253	317,594
1901	640,816	286,782
1913	1,603,325	970,717
1914	891,035	609,294
1915	559,197	405,635
1916	655,587	492,964
1917	416,213	378,294
1918	329,576	409,466
1919	1,422,344	2,023,190
1920	1,452,489	2,055,883
1921	2,502,467	393,252
1922	1,595,620	189,690
1923	1,514,821	165,467

Oil, Mineral, Illuminating (Kerosene)

	Gallons.	Dollars.
1871	133,007,177	31,309,780
1881	332,283,045	34,317,695
1891	571,119,805	40,221,201
1901	781,207,105	51,477,267
1913	1,048,894,297	66,189,265
1914	1,157,283,810	74,500,162
1915	886,316,740	53,607,082
1916	823,164,882	54,288,788
1917	833,969,012	642,377
1918	528,217,669	47,261,782
1919	725,686,746	81,495,706
1920	915,138,071	126,392,949
1921	833,194,727	128,089,900
1922	807,701,055	76,389,049
1923	847,929,454	76,553,967

Oil, Mineral, Petroleum, Crude

	Gallons.	Dollars.
1871	9,460,816	1,820,803
1881	39,984,844	3,065,464
1891	91,415,995	5,876,452
1901	138,448,430	6,686,929
1913	195,642,935	7,750,767
1914	146,477,342	6,812,672
1915	152,514,129	4,911,634
1916	163,734,200	5,754,279
1917	176,368,675	7,162,550
1918	185,069,674	9,288,979
1919	163,782,498	9,905,490
1920	356,542,830	24,263,884
1921	355,200,756	29,137,765
1922	378,975,150	16,366,428
1923	716,551,862	23,111,816

Oil, Mineral, Lubricating and Heavy Paraffin

	Gallons.	Dollars.
1881	4,852,203	1,054,064
1891	33,514,730	4,858,603
1901	71,457,605	10,006,937
1913	213,671,499	29,574,410
1914	196,884,696	27,852,959
1915	214,429,099	28,499,786
1916	250,392,768	37,451,607
1917	271,028,546	48,649,557

Stated as following classes after 1917:—

Oil, Mineral, Lubricating, Paraffin

	Gallons.	Dollars.
1918	10,287,896	2,131,292
1919	7,596,525	1,173,821
1920	6,823,644	1,527,773
1921	1,183,675	573,450
1922	15,077,854	2,996,612

Stated separately after 1922.

Oil, Mineral, Lubricating, All Other

	Gallons.	Dollars.
1918	259,385,874	64,030,825
1919	265,552,016	84,982,874
1920	329,288,894	110,539,088
1921	332,274,197	136,495,631
1922	307,794,350	75,113,214

Stated separately after 1922.

Oil, Mineral, Lubricating, Red and Pale

	Gallons.	Dollars
1923	186,347,147	38,147,688

Oil, Mineral, Lubricating, Black

	Gallons.	Dollars
1923	47,155,711	6,361,092

Oil, Mineral, Lubricating, Cylinder

	Gallons.	Dollars.
1923	114,252,692	31,551,377

Oil, Mineral, Lubricating, Light Oils in Small Packages

	Gallons.	Dollars
1923	664,973	596,144

Oil, Mineral, Naphthas, Etc., Gasoline

	Gallons.	Dollars.
1913	81,698,917	10,931,490
1914	151,611,537	21,699,475
1915	156,860,666	17,603,317
1916	100,148,554	16,297,561
1917	226,154,560	46,932,967
1918	260,880,122	61,642,859
1919	322,920,087	78,088,061
1920	294,939,121	72,160,278
1921	382,610,683	103,199,531

Not stated separately after 1921.

Paint *and* Varnish Removers

THE paint and varnish trade of the United States and Canada has recognized our patented removers to be the best.

Protected by United States and Canadian Patents.

Patents sustained by United States Courts.

Buy One of the Licensed Brands.

Chadeloid Chemical Co.
100 William Street - New York, N. Y.

Exports from the United States

Oil, Mineral, Gasoline, Naphtha and Other Light Products

	Gallons.	Dollars.
1871	7,209,592	746,797
1881	17,292,310	1,693,975
1891	12,171,147	993,056
1901	17,834,254	1,555,608
1913	101,821,572	14,269,878
1914	40,840,730	5,653,210
1915	94,335,128	10,296,928
1916	194,644,803	29,472,233
1917	199,563,352	41,057,840
1918	209,029,477	52,739,227
1919	146,301,861	38,654,419
1920	184,761,512	50,537,352
1921	259,603,571	77,415,408
1922	550,478,181	117,630,281
1923	845,693,830	137,680,748

Oil, Mineral, Residuum

	Gallons.	Dollars.
1871	.....	14,770
1881	*77,330	184,411
1891	*38,066	77,422
1901	*622,538	1,376,047
1913	27,513,568	496,237
1914	113,370,245	1,907,715
1915	9,952,970	230,552
1916	13,538,335	388,175
1917	551,967	33,313
1918	881,875	96,480
1919	181,121	14,557
1920	50,272,602	2,732,783
1921	9,825,633	606,302
1922	10,091,192	800,044
1923	1,440,775	158,652

* Barrels.

Oil, Mineral, Gas and Fuel Oil

	Gallons.	Dollars.
1914	475,143,205	13,747,863
1915	672,931,878	18,543,976
1916	897,853,433	24,770,296
1917	1,040,671,713	32,329,617
1918	1,223,283,641	61,137,607
1919	898,044,039	49,918,288
1920	685,738,142	38,195,061
1921	861,934,328	59,237,822
1922	740,196,772	32,099,290
1923	1,228,594,295	35,708,049

Oil, Mineral, Fuel or Bunker Oil, Laden on Vessels Engaged in Foreign Trade

	Barrels.	Dollars.
1915	2,898,393	2,567,017
1916	4,532,822	4,195,803
1917	5,924,460	6,418,474
1918	5,954,448	8,858,880
1919	8,648,967	17,308,722
1920	19,857,307	43,604,177
1921	28,903,722	72,130,004
1922	29,120,537	49,841,883
1923	37,581,845	52,204,729

Oil, Cocoa Butter

	Pounds.	Dollars.
1920	11,048,416	4,401,482
1921	3,170,617	987,534
1922	1,199,969	359,782
1923	762,371	215,247

Oil, Cocoanut

	Pounds.	Dollars.
1920	141,088,048	28,968,689
1921	6,639,055	886,574
1922	12,972,264	1,071,924
1923	16,562,237	1,417,060

Oil, Corn

	Pounds.	Dollars.
1901	*4,808,545	1,831,980
1913	19,739,622	1,292,009
1914	18,281,576	1,307,204
1915	17,789,635	1,302,159
1916	8,967,826	770,076
1917	8,779,760	998,105
1918	1,831,114	306,219
1919	1,095,414	227,727
1920	12,482,679	2,954,637
1921	6,919,170	1,033,106
1922	5,732,993	678,180
1923	4,361,100	558,834

* "Gallons."

Oil, Cottonseed

	Pounds.	Dollars.
1871	.....	140,577
*1881	3,444,084	1,465,255
*1891	11,003,160	3,975,305
1901	*49,356,741	16,541,321
1913	315,232,892	20,736,972
1914	192,963,079	13,843,179
1915	318,366,525	21,872,940
1916	266,529,960	22,659,800
1917	158,911,767	19,878,325
1918	100,779,981	18,309,854
1919	178,709,033	36,970,545
1920	159,400,618	36,220,529
1921	283,268,025	31,392,838

* "Gallons." Stated separately after 1921.

Oil, Cottonseed, Crude

	Pounds.	Dollars.
1922	31,712,143	2,508,696
1923	27,721,523	2,627,428

Oil, Cottonseed, Refined

	Pounds.	Dollars.
1922	43,590,678	4,778,446
1923	21,826,194	2,628,212

Oil, Linseed

	Gallons.	Dollars.
1871	37,841	35,962
1881	72,190	48,479
1891	76,789	48,267
1901	99,919	66,653
1913	1,733,925	874,461
1914	239,198	134,540
1915	1,212,133	660,089
1916	714,120	479,230
1917	1,201,554	1,117,895
1918	1,187,859	1,532,307
1919	1,096,304	1,805,291
1920	1,136,585	2,086,292
1921	4,209,577	719,414
1922	2,702,634	332,781
1923	3,013,216	407,863

Quantity stated in pounds after 1920.

Oil, Peanut

	Pounds.	Dollars.
1920	4,922,781	1,196,831
1921	1,594,643	223,680
1922	963,102	100,691
1923	208,485	18,957

Oil, Soya Bean

	Pounds.	Dollars.
1920	67,781,974	14,911,973
1921	5,117,605	760,843
1923	2,458,080	207,288
1923	1,356,220	139,557

Oil, Peppermint

	Pounds.	Dollars.
1891	45,321	120,831
1901	60,166	63,672
1913	144,663	395,551
1914	117,809	397,050
1915	184,981	384,593
1916	154,096	323,070
1917	100,032	218,627
1918	76,247	233,899
1919	65,548	325,070
1920	90,205	677,605
1921	50,425	286,624
1922	154,344	314,643
1923	123,212	366,273

Oils, Vegetable, All Other, Fixed or Expressed

	Pounds.	Dollars.
1891	.....	93,429
1901	.....	363,066
1913	.....	420,360
1914	.....	338,956
1915	.....	1,198,852
1916	.....	2,230,002
1917	.....	3,004,283
1918	.....	3,951,659
1919	.....	18,512,517
1920	.....	3,258,446
1921	.....	1,013,541
1922	6,369,664	669,142
1923	8,508,711	976,133

Oils, Vegetable, All Other, Volatile or Essential

	Pounds.	Dollars.
1871	.....	119,311
1881	.....	92,738
1891	.....	65,104
1901	.....	169,004
1913	.....	325,040
1914	.....	230,557
1915	.....	413,104
1916	.....	705,037
1917	.....	1,062,809
1918	.....	857,044
1919	.....	1,216,870
1920	.....	1,551,992
1921	.....	890,472
1922	.....	521,907
1923	637,705	645,754

Oilseeds

	Pounds.	Dollars.
1922	3,836,852	140,590
1923	2,583,798	137,232

Oleic Acid, or Red Oil

	Pounds.	Dollars.
1922	3,590,298	290,482
1923	1,728,091	143,454

Oleo Stock

	Pounds.	Dollars.
1922	15,596,285	1,523,464
1923	10,309,609	1,172,756

Oleo and Lard Stearin

	Pounds.	Dollars.
1922	10,678,056	1,049,692
1923	8,765,194	941,989

Oleomargarine, Animal

	Pounds.	Dollars.
1881	26,327,671	3,815,560
1891	1,986,743	255,024
1901	12,990,699	484,501
1913	2,987,582	311,485
1914	2,532,821	263,453
1915	5,252,183	617,035
1916	5,426,221	640,480
1917	5,651,267	901,659
1918	6,309,896	1,631,267
1919	18,570,400	5,179,429
1920	20,952,180	6,047,413
1921	6,219,165	1,478,649
1922	1,989,421	353,803
1923	1,792,436	293,357

Oleomargarine, Vegetable

	Pounds.	Dollars.
1922	333,756	47,709
1923	1,745,414	240,778

Paints, Dry Colors, N. E. S.

	Pounds.	Dollars.
1914	.....	690,836
1915	.....	1,072,736
1916	.....	1,591,913
1917	.....	1,810,393
1918	.....	1,907,667
1919	.....	2,808,980
1920	.....	2,991,614
1921	.....	2,170,237
1922	31,992,345	1,350,448
1923	35,146,264	1,633,416

Paints, Enamel Paints

	Pounds.	Dollars.
1922	1,501,520	418,521
1923	2,128,074	582,019

Paints, Ready Mixed

	Gallons.	Dollars.
1914	852,910	1,096,335
1915	703,494	884,700
1916	1,099,721	1,384,226
1917	1,216,062	1,756,393
1918	1,519,472	2,398,332
1919	2,288,632	4,556,192
1920	2,551,531	5,278,390
1921	2,317,630	5,357,696
1922	1,080,699	2,258,019
1923	1,388,330	3,736,725

Paints, Red Lead and Litharge

	Pounds.	Dollars.
1918	4,792,330	567,854
1919	7,952,730	946,114
1920	3,072,731	348,907
1921	2,046,339	244,151
1922	2,015,696	168,724
1923	3,680,663	372,828

Paints, White and Sublimed Lead

	Pounds.	Dollars.
1914	16,845,154	1,013,506
1915	19,700,810	1,070,646
1916	29,107,449	1,861,730
1917	21,388,938	1,944,145
1918	18,235,763	2,072,352
1919	20,462,348	2,337,318
1920	34,441,918	3,508,913
1921	17,408,803	1,895,696
1922	8,945,730	672,211
1923	10,344,089	836,275

Paints, Not Elsewhere Specified

	Pounds.	Dollars.
1871	.....	172,604
1881	.....	287,338
1891	.....	690,698
1901	.....	1,317,961
1914	.....	1,779,863
1915	.....	1,527,494
1916	.....	3,259,539
1917	.....	4,413,549
1918	.....	4,876,312
1919	.....	6,213,430
1920	.....	7,310,876
1921	.....	5,947,461
1922	10,068,393	1,720,360
1923	11,502,947	1,934,444

Paper, Grease, and Waterproof

	Pounds.	Dollars.
1918	.....	155,188
1919	.....	596,887
1920	.....	239,512
1921	.....	345,366
1922	1,096,766	143,467
1923	1,640,980	219,715

Paraffin and Paraffin Wax

	Pounds.	Dollars.
1871	37,423	4,758
1881	5,369,821	437,187
1891	66,366,003	3,714,649
1901	129,184,964	6,857,288
1913	290,678,861	9,679,273
1914	186,357,728	6,516,338
1915	330,374,056	10,589,843
1916	360,650,114	12,873,250
1917	348,743,903	16,038,811

Stated as following classes after 1917:—

Paraffin Wax, Unrefined

	Pounds.	Dollars.
1918	82,534,361	4,677,280
1919	53,729,436	4,915,237
1920	79,023,341	5,377,069
1921	50,121,130	2,994,654
1922	69,651,581	2,039,943
1923	94,316,692	2,769,448

Paraffin Wax, Refined

	Pounds.	Dollars.
1918	164,159,159	13,866,810
1919	185,078,571	19,642,149
1920	282,384,250	26,088,672
1921	203,289,734	17,524,258
1922	189,864,980	6,965,791
1923	235,745,857	8,657,557

Paste

		Dollars.
1901	.....	863
1913	.....	69,032
1914	.....	68,831
1915	.....	91,522
1916	.....	208,537
1917	.....	200,585

Included in "Mucilage and Paste" after 1917.

Peanuts

	Pounds.	Dollars.
1915	5,875,076	325,725
1916	8,669,430	450,765
1917	22,413,297	1,336,638
1918	12,488,209	1,517,831
1919	13,596,660	1,475,195
1920	14,137,956	1,740,002
1921	13,149,417	1,063,353
1922	12,621,302	834,912
1923	4,906,335	459,145

Perfumery and Toilet Waters

	Pounds.	Dollars.
1871	.....	392,993
1881	.....	292,939
1891	.....	450,663
1901	.....	380,994
1913	.....	1,441,982
1914	.....	1,620,872
1915	.....	1,715,059
1916	.....	2,903,063
1917	.....	3,618,620
1918	.....	3,965,465
1919	.....	6,077,854
1920	.....	7,979,237
1921	.....	6,236,766
1922	726,480	504,167
1923	655,750	562,385

Petroleum Jelly

	Pounds.	Dollars.
1913	.....	536,637
1914	.....	661,889
1915	.....	838,842
1916	.....	1,099,315
1917	.....	989,367
1918	.....	1,278,658
1919	.....	2,608,701
1920	.....	3,156,286
1921	.....	2,072,595
1922	7,264,224	1,254,183
1923	8,774,513	1,164,538

Platinum, Unmanufactured

	Ounces, troy.	Dollars.
1913	1,290	57,071
1914	273	12,977
1915	1,397	53,266
1916	1,083	92,388
1917	3,254	207,662
1918	468	50,697
1919	91	10,074
1920	1,640	223,332
1921	3,065	234,804
1922	1,198	84,250
1923	1,151	128,599

Platinum, Manufactures of (Except Jewelry)

	Ounces, troy.	Dollars.
1913	.....	126,013
1914	.....	71,172
1915	.....	27,101
1916	.....	82,929
1917	.....	77,265
1918	.....	33,557
1919	.....	30,363
1920	.....	85,364
1921	.....	114,873
1922	486	35,967
1923	592	65,073

Plumbago or Graphite, Unmanufactured

	Pounds.	Dollars.
1881	.....	135
1891	.....	.....
1900	.....	35,908
1913	4,503,569	321,679
1914	5,376,880	387,075
1915	2,324,081	152,446
1916	936,869	46,907
1917	2,500,057	163,333
1918	4,912,730	331,369
1919	1,392,043	102,162
1920	1,306,859	107,552
1921	1,195,228	84,908
1922	1,893,881	90,183
1923	1,815,292	138,542

Plumbago or Graphite, Manufactures of, Except Crucibles

	Pounds.	Dollars.
1913	.....	175,583
1914	.....	289,499
1915	.....	368,333
1916	.....	845,729
1917	.....	1,296,305
1918	.....	716,538
1919	.....	862,544
1920	.....	517,188
1922	2,028,463	235,019
1923	2,081,041	335,778

Potash, Bichromate

	Pounds.	Dollars.
1922	4,430,208	433,552
1923	3,262,760	295,751

Potash, Chlorate

	Pounds.	Dollars.
1918	1,564,662	681,128
1919	1,903,133	678,276
1920	2,845,858	475,034
1921	1,130,771	179,300
1922	447,730	46,252
1923	200,178	21,995

Potash, All Other

	Pounds.	Dollars.
1918	.....	961,989
1919	.....	1,318,188
1920	.....	3,362,827
1921	.....	1,309,852
1922	7,483,175	296,378
1923	4,532,495	188,091

Pyroxylin Products, Known as Celluloid, etc., Unmanufactured

	Pounds.	Dollars.
1922	1,225,033	1,494,372
1923	1,940,071	2,346,789

Quicksilver or Mercury

	Pounds.	Dollars.
1871	994,035	732,845
1881	2,995,948	1,124,965
1891	157,052	88,359
1901	716,559	490,298
1913	40,410	21,885
1914	64,190	32,241
1915	222,927	155,089
1916	232,763	274,086
1917	1,018,094	1,071,325
1918	502,088	679,414
1919	538,325	651,083
1920	330,175	399,263
1921	27,358	25,022
1922	29,650	19,169
1923	23,827	27,196

Quinia Sulphate, and Other Salts of Cinchona

	Ounces.	Dollars.
1922	355,181	219,534
1923	392,328	166,736

Roots, Herbs, and Barks, Crude, Not Elsewhere Specified

	Pounds.	Dollars.
1901	.....	275,150
1913	.....	424,312
1914	.....	513,071
1915	.....	470,090
1916	.....	768,977
1917	.....	852,256
1918	.....	784,514
1919	.....	1,133,855
1920	.....	1,793,064
1921	.....	836,320
1922	3,919,912	878,636
1923	5,961,533	1,297,904

Rosin

	Barrels (500 lbs.)	Dollars.
1871	511,959	1,600,651
1881	1,023,710	2,529,423
1891	1,790,251	3,467,199
1901	2,820,815	4,742,457
1913	2,806,046	17,359,145
1914	2,417,950	11,217,316
1915	1,372,316	6,220,321
1916	1,571,279	8,874,313
1917	1,638,590	10,705,972
1918	1,070,929	7,878,718
1919	881,777	11,323,381
1920	1,322,034	24,847,681
1921	877,109	10,363,147
1922	1,403,721	6,623,499
1923	1,205,649	11,057,980

Salt

	Pounds.	Dollars.
1871	7,209,560	47,115
1881	2,739,300	14,752
1891	5,242,280	29,510
1901	14,183,167	67,316
1913	128,035,915	441,673
1914	148,931,205	542,783
1915	165,619,386	616,132
1916	165,637,801	600,648
1917	194,151,456	726,761
1918	267,045,840	1,416,709
1919	242,143,146	1,541,766
1920	257,493,745	1,610,061
1921	242,632,102	1,649,423
1922	257,884,879	1,521,529
1923	251,067,170	1,211,226

Seed, Cotton

	Pounds.	Dollars.
1871	.....	29,386
1881	75,693	3,031
1891	10,108,014	85,315
1901	43,329,257	366,953
1913	24,048,647	328,988
1914	16,342,384	215,115
1915	6,314,439	94,287
1916	2,475,907	37,811
1917	1,001,369	35,434
1918	1,565,052	57,693
1919	1,603,795	65,937
1920	3,506,218	197,450
1921	4,811,313	246,783
1922	2,355,318	83,755

Not stated after 1922.

Seed, Flax

	Bushels.	Dollars.
1871	282	721
1881	.....	.....
1891	144,848	184,584
1901	2,755,683	4,319,102
1913	16,894	26,699
1914	305,546	436,874
1922	78,268,703	6,154,911
1915	4,145	9,748
1916	2,614	6,501
1917	1,017	3,671
1918	21,481	98,165
1919	15,574	110,142
1920	24,044	182,796
1921	1,481	4,378
1922	2,267	7,607

Not stated after 1922.

Soap, Laundry

	Pounds.	Dollars.
1922	67,079,338	4,694,906
1923	66,498,491	4,701,141

Soap, Toilet or Fancy

	Pounds.	Dollars.
1871	.....	19,954
1881	.....	44,396
1891	.....	86,704
1901	.....	562,514
1913	.....	2,132,663
1914	.....	2,141,633
1915	.....	1,777,342
1916	.....	2,610,481
1917	.....	2,122,674
1918	.....	2,246,258
1919	.....	3,896,179
1920	.....	6,625,259
1921	.....	4,182,428
1922	7,565,881	2,869,007
1923	7,369,539	3,022,480

Soap, Other

	Pounds.	Dollars.
1871	7,786,276	576,026
1881	13,323,737	650,361
1891	25,750,671	1,050,559
1901	28,779,000	1,006,666
1913	51,292,554	2,496,904
1914	58,547,763	2,797,369
1915	63,367,750	3,080,957
1916	75,548,686	3,709,277
1917	73,049,210	4,169,117
1918	82,726,757	6,894,454
1919	143,128,191	13,723,225
1920	155,891,586	16,102,825
1921	85,830,216	8,447,007
1923	18,456,371	1,583,011

Soda Ash

	Pounds.	Dollars.
1918	198,752,457	6,074,879
1919	191,864,329	6,261,518
1920	116,555,500	2,804,130
1921	113,481,062	3,308,783
1922	33,090,180	757,648
1923	29,023,704	729,870

Soda, Bicarbonate of

	Pounds.	Dollars.
1920	*11,998,510	360,601
1921	13,353,769	389,337
1922	14,803,631	347,233
1923	16,934,348	387,861

Soda, Caustic

	Pounds.	Dollars.
1918	184,729,691	8,029,086
1919	127,192,309	6,382,511
1920	229,146,363	9,321,902
1921	101,021,827	5,478,055
1922	123,126,777	4,660,815
1923	114,683,728	3,827,403

Soda, Cyanide

	Pounds.	Dollars.
1922	1,248,294	235,224
1923	5,005,952	473,675

Soda, Salts and Preparations of

		Dollars.
1915	.....	3,141,022
1916	.....	12,649,854
1917	.....	18,381,450

Not stated prior to 1915 and subdivided after 1917; see following classes.

Soda, Sal Soda

	Pounds.	Dollars
1918	14,076,264	205,499
1919	10,675,870	186,382
1920	12,763,899	202,030
1921	10,376,424	207,539
1922	11,061,664	200,903
1923	12,224,131	179,006

Soda, Silicate of (Water Glass)

	Pounds.	Dollars
1918	26,125,740	373,822
1919	26,009,043	400,508
1920	33,692,535	420,124
1921	23,099,660	321,972
1922	26,024,366	279,041
1923	33,103,433	316,543

Soda, Other Salts of

	Pounds.	Dollars.
1918	.....	7,421,521
1919	.....	6,475,158
1920	.....	7,485,008
1921	.....	5,378,899
1922	97,518,434	2,439,113
1923	148,763,026	2,407,509

Spices

	Pounds.	Dollars.
1891	.....	22,440
1901	.....	20,204
1914	.....	84,427
1915	.....	76,297
1916	.....	250,827
1917	.....	287,484
1918	.....	507,712
1919	.....	539,319
1920	.....	607,442
1921	.....	322,524
1922	1,363,252	197,241
1923	1,842,893	225,880

Exports from the United States

Sponges

	Pounds.	Dollars.
1871	.....	1,546
1881	.....	6,736
1891	36,966	20,821
1901	63,654	29,554
1913	205,804	177,059
1914	209,470	173,806
1915	117,618	109,635
1916	197,826	165,884
1917	116,131	129,063
1918	130,471	177,210
1919	187,151	212,041
1920	298,021	307,123
1921	110,928	156,103
1922	114,229	141,050
1923	127,190	135,675

Starch

	Pounds.	Dollars.
1871	1,761,813	115,698
1881	13,473,419	629,710
1891	12,883,821	475,817
1901	102,800,725	2,005,865
1913	110,987,591	2,009,716
1914	76,713,779	1,825,230
1915	107,036,638	2,939,453
1916	210,185,192	5,576,914
1917	140,423,822	4,721,533

Includes "Cornstarch (except for table use)" prior to 1918; see below.

Starch, Cornstarch

	Pounds.	Dollars.
1918	38,659,323	2,220,377
1919	105,726,970	5,333,480
1920	163,314,642	10,238,284
1921	116,514,424	4,251,173
1922	348,940,114	7,294,865
1923	195,020,108	5,895,139

Starch, All Other

	Pounds.	Dollars.
1918	35,223,390	2,282,015
1919	38,061,260	2,197,518
1920	74,293,884	4,675,096
1921	24,850,212	1,146,163
1922	37,932,600	903,786
1923	9,215,033	320,452

Stearin from Animal Fats

	Pounds.	Dollars.
1871	.....	2,506
1881	1,118,848	87,924
1891	1,347,386	62,194
1915	11,457,907	1,083,665
1916	13,062,247	1,461,661
1917	12,936,357	1,798,317
1918	10,360,030	2,181,317
1919	11,537,284	2,309,979
1920	22,505,608	4,717,748
1921	19,177,311	2,429,414
1922	33,017,879	3,183,684

See "Oleo and Lard Stearin, Etc." after 1922.

Stearin, Vegetable

	Pounds.	Dollars.
1917	1,321,773	179,092
1918	1,226,127	248,585
1919	782,467	166,428
1920	5,138,225	962,304
1921	1,848,313	224,576
1922	1,949,422	194,596
1923	233,666	34,059

Sulphur or Brimstone, Crude

	Tons.	Dollars.
1913	73,861	1,353,310
1914	110,022	2,018,724
1915	48,391	885,756
1916	68,460	1,314,290
1917	177,548	3,595,512
1918	140,525	3,842,904
1919	122,891	3,731,386
1920	393,404	8,725,112
1921	376,046	6,546,639
1922	409,722	6,069,871
1923	472,525	7,105,260

Sulphur, Refined, Sublimed, and Flowers of

	Pounds.	Dollars.
1922	5,162,966	113,729
1923	4,367,090	110,847

Talcum, and Other Toilet Powders

	Pounds.	Dollars.
1922	3,642,604	1,397,512
1923	3,814,379	1,471,588

Tallow (Beef Tallow).

	Pounds.	Dollars.
1871	33,859,317	3,025,035
1881	96,403,372	6,800,628
1891	111,689,251	5,501,049
1901	77,166,889	3,848,561
1913	30,586,300	1,910,439
1914	15,812,831	1,002,011
1915	20,239,988	1,386,445
1916	16,288,743	1,326,472
1917	15,209,389	1,800,909
1918	5,014,964	931,941
1919	16,172,111	2,325,177
1920	32,937,026	5,738,181
1921	16,843,868	1,920,376

Stated separately after 1921.

Tallow, Animal, Inedible

	Pounds.	Dollars.
1922	29,000,472	2,017,557
1923	34,671,935	2,872,994

Tallow, Animal, Edible

	Pounds.	Dollars.
1922	2,375,803	193,205
1923	1,204,303	99,783

Tanning Extracts, Chestnut

	Pounds.	Dollars.
1922	7,911,316	253,815
1923	8,714,834	307,579

Tanning Extracts, Other (Vegetable and Chemical)

	Pounds.	Dollars.
1922	22,612,678	1,051,163
1923	23,466,809	1,172,094

Tar, Turpentine and Pitch

	Barrels.	Dollars.
1871	32,584	93,884
1881	46,582	109,381
1891	25,806	46,274
1901	50,526	123,464
1914	351,352	568,891
1915	239,661	430,612
1916	67,963	291,731
1917	103,397	561,566
1918	82,030	598,211
1919	48,030	384,263
1920	61,790	534,175
1921	41,748	377,649

Stated separately after 1921.

Tar, Turpentine and Pitch

	Barrels.	Dollars.
1922	9,817	63,158

Figures are for July 1 to Dec. 31.
Sub-divided after Dec. 31. See following classes.

Tar and Pitch, Wood

	Barrels (280 lbs.)	Dollars.
1922	31,529	159,173
1923	74,092	375,761

Other Gums and Resins

	Pounds.	Dollars.
1922	1,657,680	367,760
1923	2,079,080	676,232

Tin Pigs, Bars, Etc.

	Pounds.	Dollars.
1917	798,288	427,709
1918	209,391	127,219
1919	488,902	352,483
1920	829,016	509,086
1921	2,564,532	908,354
1922	1,455,677	432,571
1923	1,679,803	646,250

Tungsten, Manganese and Other Ferro-Alloys, N. E. S.

	Pounds.	Dollars.
1917	1,784,306	3,597,426
1918	2,184,769	4,056,487
1919	177,123	408,148
1920	17,494	57,820
1921	1,600	1,625
1922	303	13,189
1923	1,078	58,049

Quantity in tons after 1921.

Turpentine, Spirits of

	Gallons.	Dollars.
1871	2,453,554	1,009,508
1881	6,595,528	2,414,719
1891	12,243,621	4,668,140
1901	20,240,851	7,715,029
1913	21,039,597	8,794,656
1914	18,900,704	8,095,958
1915	9,464,120	4,476,306
1916	9,310,268	4,337,563
1917	8,841,875	4,313,670
1918	5,095,124	2,695,935
1919	8,063,578	6,069,853
1920	7,461,355	11,121,864
1921	9,741,711	11,279,253
1922	10,786,280	8,071,839
1923	11,478,459	12,303,809

Turpentine Substitutes

	Gallons.	Dollars.
1923	844,952	358,103

Turpentine, Wood

	Gallons.	Dollars.
1922	494,576	342,430
1923	393,811	405,870

Varnishes, Oil Varnishes

	Gallons.	Dollars.
1922	376,416	657,117
1923	558,097	1,005,441

Varnishes, Other

	Gallons.	Dollars.
1871	54,454	79,292
1881	87,408	156,617
1891	153,365	203,285
1901	606,187	611,459
1913	1,279,777	1,267,860
1914	1,069,501	1,038,864
1915	731,604	682,352
1916	846,362	888,339
1917	891,812	1,104,698
1918	736,949	1,209,762
1919	1,174,664	2,238,384
1920	1,529,592	2,936,950
1921	1,158,025	2,421,839
1922	611,255	1,024,279
1923	408,065	626,818

Washing Powder and Fluid

	Pounds.	Dollars.
1913	9,923,700	756,762
1914	12,761,958	535,635
1915	14,695,317	635,476
1916	7,875,317	355,926
1917	3,517,441	197,614
1918	4,754,804	243,184
1919	3,984,745	231,786
1920	6,114,816	357,674
1921	4,021,497	267,597
1922	3,346,375	201,609
1923	5,732,091	307,900

Yeast

	Pounds.	Dollars.
1901	.....	6,809
1917	.....	1,021,651
1918	.....	918,842
1919	.....	1,116,690
1920	.....	868,718
1921	.....	675,203
1922	896,963	96,137
1923	1,068,263	121,972

Zinc Dross

	Pounds.	Dollars.
1901	.....	164,140
1914	572,477	29,084
1915	10,361,840	557,247
1916	2,526,288	164,649
1917	10,692,766	886,017
1918	31,104,163	2,283,843
1919	26,500,333	1,929,545
1920	4,097,465	269,997
1921	1,995,186	89,298
1922	10,567,684	373,391

Not stated after 1922.

Zinc Dust

	Pounds.	Dollars.
1922	3,995,124	287,800
1923	7,357,049	507,289

Zinc, Oxide of

	Pounds.	Dollars.
1871	1,082,362	48,292
1881	1,281,375	16,405
1891	8,172,000	142,011
1901	9,456,057	412,719
1914	29,197,790	1,215,360
1915	37,580,411	1,808,970
1916	31,222,228	1,960,589
1917	31,486,877	3,096,019
1918	25,862,063	2,750,610
1919	26,051,535	3,024,198
1920	30,925,243	2,895,933
1921	10,149,360	1,016,784
1922	6,726,285	521,964
1923	10,047,408	743,577

52-Year Record of Imports into the United States, 1871-1923

The following tables, compiled from official records, give, wherever figures are obtainable, import data, quantity and value for the fiscal years to June 30, 1871, 1881, 1891, 1901, and 1913 to 1923, inclusive, Where statistics are missing for any of the years indicated it is due to the fact that official records were not kept and the figures are, therefore, unavailable.

Abrasives, Pumice Stone, Unmanufactured.

	Tons.	Dollars.
1871	.....	6,448
1881	.....	19,052
1891	.....	52,414
1901	.....	28,618
1913	5,558	44,474
1914	7,065	57,427
1915	6,060	47,469
1916	8,650	69,311
1917	7,205	76,620
1918	3,900	34,062
1919	1,139	17,196
1920	10,933	145,984
1921	4,488	64,213
1922	5,728	59,603
1923	10,339	72,867

Abrasives, Rottenstone.

	Tons.	Dollars.
1919	13	1,486
1920	461	6,125
1921	90	4,747
1922	62	4,306

Not stated separately after 1922.

Abrasives, Pumice Stone, Wholly or Partially Manufactured.

	Pounds.	Dollars.
1913	3,845,320	17,417
1914	6,484,875	28,280
1915	6,013,747	27,152
1916	5,616,012	44,186
1917	7,796,173	64,865
1918	3,238,776	34,262
1919	1,746,024	23,168
1920	6,303,302	63,853
1921	6,783,635	79,727
1922	3,871,541	28,457
1923	7,131,452	54,603

Abrasives, Rottenstone and Tripoli.

		Dollars.
1881	.....	3,848
1891	.....	.....
1901	.....	24,556
1913	.....	30,621
1914	.....	20,858
1915	.....	24,796
1916	.....	38,613
1917	.....	23,315
1918	.....	14,551
1923	.....	13,759

Stated separately 1919 to 1922.

Abrasives, Tripoli.

	Tons.	Dollars.
1919	247	7,232
1920	411	8,483
1921	324	9,423
1922	320	7,918

Not stated separately after 1922.

Acenaphthene, Cumol, Fluorene, Methyl-anthracene and Methyl-naphthalene

	Pounds.	Dollars.
1920	15,759	946
1921	.....	.....
1922	100	64
1923	23,739	2,843

Acetanilid

	Pounds.	Dollars.
1914	1,000	164
1915	800	889
1916	.....	.....
1917	15	22
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	10	16
1922	20	12
1923	20	32

Acetone.

	Pounds.	Dollars.
1914	2,760	307
1915	235,917	21,105
1916	179,497	14,424
1917	.....	.....
1918	148,082	26,916
1919	443,504	80,986
1920	.....	.....
1921	6,654	811
1922	155	57
1923	44,099	6,910

Acetphenetidin (Phenacetin)

	Pounds.	Dollars.
1915	39,990	27,358
1916	203	1,532
1917	3,280	40,352
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	.....	.....

Imports Into the United States

Acid, Acetic Anhydride

	Pounds.	Dollars.
1913	309,645	51,632
1914	150,892	23,240
1915	3,652	1,019
1916	18,177	10,013
1917	9,060	7,485
1918	13,112	16,533
1919	10,948	14,780
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	2,350	638

Acid, Acetic or Pyroligneous.

	Pounds.	Dollars.
1871	146	120
1881	4,223	942
1891	10,946	1,036
1901	291,801	21,182
1913	39,648	3,036
1914	27,750	1,932
1915	312,850	16,419
1916	804,858	53,969
1917	201,604	28,492
1918	264,997	47,073
1919	1,252,649	224,482
1920	2,925,076	339,178
1921	859,755	108,090
1922	21,774	17,104
1923	269,960	31,325

Acid, Acetylsalicylic (Aspirin).

	Pounds.	Dollars.
1914	22,841	11,873
1915	112,602	63,792
1916	229	311
1917	501	2,136
1918	1,100	3,300
1919	26	76
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	.....	.....

Acid, Amidosalicylic

	Pounds.	Dollars.
1920	11,190	8,182
1921	.....	.....
1922	.....	.....
1923	.....	.....

Acid, Arsenic or Arsenious.

	Pounds.	Dollars.
1882	52,572	2,285
1891	.....	.....
1901	497,916	20,486
1913	5,164,768	208,525
1914	3,034,351	110,179
1915	2,789,531	106,530
1916	2,458,694	104,988
1917	1,984,480	159,429
1918	3,746,246	384,964
1919	7,074,429	611,398
1920	5,809,178	414,867
1921	6,733,163	511,098
1922	1,694,142	109,169
1923	13,235,646	1,225,961

Acid, Benzoic.

	Pounds.	Dollars.
1871	.....	5,571
1881	8,813	13,299
1891	.....	.....
1901	262,697	93,667
1913	863,015	133,887
1914	278,896	51,701
1915	132,666	25,442
1916	25,155	79,856
1917	13,547	32,988
1918	2,354	16,390
1919	125	1,114
1920	313	1,461
1921	240	165
1922	11,023	2,847
1923	200	775

Acid, Boric

	Pounds.	Dollars.
1871	1,294,049	185,477
1881	187,033	15,771
1891	666,865	40,919
1901	648,994	23,485
1913	362,400	13,897
1914	527,201	22,390
1915	401,684	18,002
1916	424,219	22,145
1917	404,210	24,580
1918	195,650	14,087
1919	280,935	31,170
1920	253,958	11,165
1921	227,461	19,049
1922	1,046,926	82,785
1923	430,677	29,146

Acid, Carbolic

	Pounds.	Dollars.
1871	.....	8,671
1881	115,691	48,691
1891	1,140,924	134,234
1901	1,808,026	260,851

Stated separately for later years.

Acid, Carbolic (Not Phenol).

	Pounds.	Dollars.
1917	495,813	84,355
1918	127,574	11,198
1919	2,021,165	194,589
1920	157,319	13,243
1921	183,709	20,906
1922	315,406	31,675

Not stated after 1922.

Acid, Carbolic (Phenol).

	Pounds.	Dollars.
1913	8,845,631	688,771
1914	8,393,216	531,535
1915	3,106,445	179,685
1916	2,246,250	184,841
1917	772,667	66,878
1918	560,276	62,325
1919	95,861	31,963
1920	30	14
1921	1,260	372
1922	.....	361
1923	623,229	87,833

Acid, Chromic.

	Pounds.	Dollars.
1871	.....	5
1881	124	89
1891	.....	1,742
1901	46,993	9,881
1913	8,522	1,682
1914	7,778	1,220
1915	6,505	1,394
1916	.....	.....
1917	.....	.....
1918	9,512	1,857
1919	.....	.....
1920	.....	.....
1921	1,100	90
1922	3,969	1,289
1923	7,020	2,481

Acid, Citric.

	Pounds.	Dollars.
1871	184,662	105,816
1881	38,983	19,750
1891	45,197	15,482
1901	76,805	23,039
1913	8,877	2,916
1914	652,210	204,347
1915	722,434	447,131
1916	171,877	107,603
1917	157,528	91,463
1918	196,599	126,066
1919	680,147	632,294
1920	1,621,577	1,426,195
1921	770,331	632,780
1922	1,624,892	609,198
1923	575,541	199,522

Acid, Fluoric and Hydrofluoric.

	Pounds.	Dollars.
1901	242	15
1913	12	6
1914	305	22
1915	150	11
1916	17	33
1917	.....	.....
1918	1	2
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	40	9

Acid, Formic.

	Pounds.	Dollars.
1913	502,685	22,414
1914	1,119,745	48,828
1915	534,895	30,641
1916	131,719	19,027
1917	385,463	95,074
1918	.....	.....
1919	.....	.....
1920	210,021	46,922
1921	413,867	66,775
1922	124,964	11,219
1923	1,145,046	82,228

Acid, Gallic.

	Pounds.	Dollars.
1871	50	70
1881	16	31
1891	.....	.....
1901	21,461	9,704
1913	51,326	17,088
1914	61,635	20,429
1915	41,558	14,992
1916	5,101	1,965
1917	.....	.....
1918	8,643	9,708
1919	22	26
1920	.....	.....
1921	.....	.....
1922	7,750	3,291
1923	6,048	2,743

Acid, Glycerophosphoric, Salts and Compounds.

	Pounds.	Dollars.
1914	24,789	23,066
1915	15,933	17,678
1916	7,668	8,242
1917	5,853	9,249
1918	961	1,884
1919	2,630	6,967
1920	7,143	12,451
1921	8,287	10,229
1922	3,264	2,716
1923	18,952	18,524

Acid, Hydrochloric or Muriatic.

	Pounds.	Dollars.
1871	.....	3,595
1881	.....	.....
1891	.....	.....
1901	16,278	430
1913	440	14
1914	254,480	1,450
1915	3,532,076	20,884
1916	4,215,491	27,292
1917	1,108,308	8,191
1918	2,254,210	18,449
1919	3,648,695	37,989
1920	4,454,308	56,828
1921	4,101,060	48,584
1922	7,015	491
1923	154,033	1,502

Acid, Lactic.

	Pounds.	Dollars.
1913	158,754	19,029
1914	276,237	30,423
1915	148,291	26,787
1916	17,845	10,930
1917	100	160
1918	330	544
1919	.....	.....
1920	17,939	6,517
1921	301,784	77,342
1922	682,392	55,027
1923	182,320	23,792

Acid, Nitric.

	Pounds.	Dollars.
1871	.....	2,278
1881	.....	45
1891	.....	.....
1901	45,857	934
1913	100	8
1914	.....	.....
1915	356,558	17,776
1916	224,699	11,487
1917	13	2
1918	9,444,028	665,071
1919	8,000,867	589,501
1920	.....	.....
1921	47,754	4,180
1922	23,545	1,970
1923	76,620	3,949

Acid, Oxalic.

	Pounds.	Dollars.
1871	414,044	61,613
1881	833,407	69,908
1891	2,743,222	200,595
1901	5,622,909	300,879
1913	8,046,380	402,960
1914	8,780,857	433,783
1915	4,496,679	262,422
1916	522,549	166,117
1917	1,183,256	527,827
1918	757,555	311,200
1919	456,698	154,041
1920	1,375,550	372,982
1921	1,824,867	482,758
1922	22,715	3,314
1923	2,839,217	228,285

Acid, Phosphoric.

	Pounds.	Dollars.
1901	175,910	31,841
1913	504,383	76,907
1914	528,827	63,222
1915	265,193	39,120
1916	71,568	12,937
1917	13,666	4,225
1918	17,711	7,644
1919	6,431	4,186
1920	80,160	27,837
1921	233,700	68,189
1922	197,994	36,941
1923	358,573	45,043

Acid, Phthalic.

	Pounds.	Dollars.
1901	31,336	17,560
1913	75,695	20,511
1914	63,574	15,597
1915	17,925	4,498
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	2,205	619

Acid, Picric

	Pounds.	Dollars.
1872	.....	40,119
1881	.....	42,994
1891	.....	.....
1901	31,638	8,554
1913	85,068	18,339
1914	.....	.....
1915	20,091	4,278
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	3,240,500	254,885
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	462	1,373

Acid, Pyrogallic.

	Pounds.	Dollars.
1901	.....	37,789
1913	9,512	9,278
1914	23,615	20,496
1915	10,564	9,514
1916	169	227
1917	.....	.....
1918	275	547
1919	.....	.....
1920	.....	.....
1921	899	2,094
1922	11	20
1923	1	3

Acid, Salicylic.

	Pounds.	Dollars.
1901	222,761	76,786
1913	31,844	6,500
1914	18,821	4,425
1915	82,617	24,408
1916	160	386
1917	5,033	3,114
1918	21,354	20,883
1919	5	2
1920	.....	.....
1921	.....	.....
1922	2,240	1,775
1923	43	113

Acid, Silicic.

	Pounds.	Dollars.
1901	25	3
1913	121,344	6,486
1914	.....	.....
1915	3,086	586
1916	15	6
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	110	44
1922	210	32
1923	100	17

Acid, Stearic

	Pounds.	Dollars.
1891	.....	2,638
1901	.....	.....
1913	119,619	12,160
1914	100,088	9,593
1915	32,795	3,465
1916	40,979	6,029
1917	538	75
1918	.....	.....
1919	.....	.....
1920	4,044	867
1921	12,662	1,750
1922	25,919	2,170
1923	352,150	37,694

Acid, Sulphuric, or Oil of Vitriol.

	Pounds.	Dollars.
1871	8,509	642
1881	3,841	276
1891	15,377	836
1901	79,120	2,335
1913	34,624	512
1914	6,725,999	40,559
1915	7,382,139	44,008
1916	6,286,490	61,352
1917	667,008	9,617
1918	2,822,527	358,904
1919	11,339,480	100,489
1920	9,221,723	79,204
1921	10,365,450	93,937
1922	4,915,213	54,727
1923	18,144,693	156,336

Acid, Tannic, Medicinal

	Pounds.	Dollars.
1871	21	26
1881	1,041	469
1891	659	239
1901	2,007	1,092
1913	1,540	768
1914	12,892	4,326
1915	49,493	17,047
1916	2,229	684
1917	160	41
1918	5,442	1,424
1919	96,831	41,675
1920	33,458	20,169
1921	46,934	21,733
1922	19,518	8,236
1923	88	75

Acid, Tartaric.

	Pounds.	Dollars.
1871	288,525	85,830
1881	64	33
1891	1,511	468
1901	1,068	299
1913	78,942	15,747
1914	848,575	205,850
1915	820,105	273,880
1916	198,873	84,373
1917	268,180	162,478
1918	384,262	231,099
1919	321,296	218,441
1920	798,687	529,231
1921	2,103,131	1,004,349
1922	3,074,283	756,696
1923	1,878,891	454,047

Acid, Valerianic.

	Pounds.	Dollars.
1901	1,172	818
1913	1,019	880
1914	1,161	750
1915	2,163	1,774
1916	600	399
1917	50	491
1918	845	5,011
1919	.....	.....
1920	700	2,278
1921	435	1,342
1922	.....	.....
1923	540	827

Acids, All Other Not Specially Provided For.

	Pounds.	Dollars.
1871	.....	93,273
1881	.....	350,080
1891	.....	380,054
1901	.....	42,838
1913	.....	86,539
1914	.....	94,075
1915	.....	73,848
1916	.....	36,430
1917	.....	85,257
1918	.....	510,091
1919	14,025	58,915
1920	52,758	25,200
1921	106,746	28,096
1922	226,956	57,361
1923	1,306,932	92,725

Aconite.

	Pounds.	Dollars.
1872	19,591	1,586
1881	5,883	455
1891	2,761	266
1901	1,130	113
1913	12,946	1,065
1914	4,267	321
1915	8,821	962
1916	6,720	538
1917	34,285	8,724
1918	475	119
1919	22,320	4,462
1920	31,471	8,881
1921	10,854	2,452
1922	10,645	1,367
1923	25,464	5,262

Acorns, Raw, but Unground.

	Pounds.	Dollars.
1913	7,165	210
1914	3,613	208
1915	4,395	198
1916	.....	.....
1917	2,420	41
1918	550	36
1919	.....	.....
1920	22,680	900
1921	1,048	98
1922	.....	.....
1923	.....	.....

Agar-Agar.

	Pounds.	Dollars.
1914	189,232	54,319
1915	344,119	92,809
1916	332,931	110,410
1917	431,622	162,527
1918	246,988	91,442
1919	338,307	172,882
1920	443,116	247,404
1921	199,584	98,722
1922	417,979	185,139
1923	372,380	337,876

Albumen, Egg or Blood

	Pounds.	Dollars.
1871	.....	135,017
1881	.....	215,535
1891	.....	119,441
1901	396,314	110,702
1913	1,246,744	406,594
1914	1,574,271	487,905

Stated separately after 1914; see following classes.

Albumen, Egg, Frozen or Liquid.

	Pounds.	Dollars.
1915	691,081	92,307
1916	1,451,376	201,509
1917	2,989,685	316,762
1918	2,014,629	250,132
1919	1,744,511	197,658
1920	2,875,639	587,368
1921	4,461,999	618,953
1922	3,844,804	475,976
1923	3,039,965	500,341

Albumen, Egg, Dried.

	Pounds.	Dollars.
1915	1,269,398	402,996
1916	1,670,996	751,976
1917	2,669,254	1,443,986
1918	3,727,998	2,450,143
1919	1,427,240	1,141,481
1920	4,716,241	5,184,229
1921	2,568,240	2,606,352
1922	2,911,347	1,494,659
1923	2,371,447	1,302,156

Albumen, Not Otherwise Provided For.

	Pounds.	Dollars.
1913	15,831	3,421
1914	382,589	58,175
1915	258,057	48,941
1916	81,787	25,615
1917	106,200	34,057
1918	671	260
1919	1,242	768
1920	37,030	21,395
1921	7,651	3,707
1922	103,481	31,130
1923	186,315	51,212

Alcohol, Grain.

	Proof gallons.	Dollars.
1891	8,794	7,623
1901	.....	.....
1913	135,250	22,780
1914	109,830	19,365
1915	40,532	5,707
1916	59,198	7,285
1917	4	8
1918	69	20
1919	290	289
1920	.....	.....
1921	27	34
1922	.....	.....
1923	3	2

Alcohol, Methyl or Wood.

	Gallons.	Dollars.
1913	362	387
1914	109,022	42,598
1915	39,485	11,880
1916	46,829	9,496
1917	11,267	4,502
1918	205,276	202,994
1919	4,375	11,141
1920	566	1,956
1921	214,328	525,730
1922	20	31
1923	15,788	12,580

Alizarin, Natural or Artificial, and Dyes Derived Therefrom.

	Pounds.	Dollars.
1881	.....	898,539
1891	344,492	674,919
1901	4,046,886	713,392
1913	8,219,087	1,824,973
1914	806,764	246,196

Stated as following class after October 3, 1913.

Alizarin and Derivatives, Natural or Synthetic, and Dyes Derived from.

	Pounds.	Dollars.
1914	1,828,074	599,648
1915	5,992,978	1,586,367
1916	71,834	44,282
1917	99,057	127,240

Stated separately after 1917.

F. MORSE SMITH

Cable Address
BAKERBRO, NEW YORK
ALL CODES

W. H. GELSHENEN

H. J. BAKER & BRO.

ESTABLISHED 1850

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Magnesium Chloride — Calcium Chloride

SOLE AGENTS BALTIMORE DISTRICT
MICHIGAN ALKALI CO.

Fertilizer Materials—Chemicals—Camphor Refiners

Alizarin, Natural.

	Pounds.	Dollars.
1918	115,133	160.775
1919	1,741	5,155
1920	4,943	3,457
1921	77,551	62,404
1922	62,928	116,773
1923	14,795	25,323

Alizarin, Synthetic.

	Pounds.	Dollars.
1918	19,180	55.179
1919	.....	.....
1920	58,810	18,785
1921	122,246	45,221
1922	36,736	18,510
1923	15,175	17,052

Alizarin Colors or Color Lakes

	Pounds.	Dollars.
1918	2,540	11,208
1919	6,284	9,121
1920	19,634	17,161
1921	144,076	204,859
1922	61,452	46,411

Not stated separately ater 1922.

Alizarin Dyes

	Pounds.	Dollars.
1918	2,759	10,698
1919	4,025	3,397
1920	19,393	9,475
1921	89,011	117,983
1922	328,900	529,562

Not stated separately ater 1922.

Alizarin Colors and Dyes

	Pounds.	Dollars.
1923	246,550	385,490

Alum, Alum Cake, Patent Alum, Sulphate of Alumina and Aluminous Cake.

	Pounds.	Dollars.
1871	4,712,840	74,450
1881	2,086,950	22,331
1891	4,652,985	58,864
1901	2,120,119	21,179
1913	4,129,160	39,944
1914	4,119,481	47,759
1915	3,904,561	41,166
1916	2,482,663	45,491
1917	1,636,989	56,768
1918	996,798	32,779
1919	220,967	7,915
1920	1,062,041	37,777
1921	3,069,682	71,135
1922	3,795,551	71,721
1923	2,750,253	48,192

Alumina, Hydroxide (Refined Bauxite.)

	Pounds.	Dollars.
1901	4,584,477	199,950
1913	2,252,156	37,812
1914	1,639,027	26,328
1915	202,968	3,680
1916	418	260
1917	.....	.....
1918	94,278	7,562
1919	.....	.....
1920	.....	.....
1921	2,549	963
1922	15,816	569
1923	2,083,043	57,328

Aluminum Leaf.

	100 leaves.	Dollars.
1891	9,768	1,109
1901	102	66
1913	3,531	1,811
1914	1,385	141
1915	15,249	1,901
1916	39,920	5,466
1917	19,161	3,706
1918	50,880	11,636
1919	95,475	19,445
1920	118,159	25,572
1921	243,510	65,759
1922	87,359	10,143
1923	362,266	27,583

Aluminum, in Crude Form, Scrap and Alloys of Which Aluminum Composes Chief Value.

	Pounds.	Dollars.
1871	.....	341
1881	517	6,071
1891	10,383	15,582
1901	62,342	29,198
1913	26,642,112	4,247,580
1914	16,421,076	2,801,911
1915	13,925,919	2,364,044
1916	8,203,895	1,823,106
1917	1,904,000	558,897
1918	1,503,360	480,782
1919	5,548,784	1,748,691
1920	30,853,386	9,595,122
1921	35,626,274	9,015,422
1922	24,697,080	4,805,767
1923	47,619,231	8,541,049

Amber, Manufactures of.

		Dollars.
1913	.....	7,202
1914	.....	9,332
1915	.....	4,516
1916	.....	5,436
1917	.....	248
1918	.....	721
1919	.....	78
1920	.....	34,145
1922	.....	9,093
1923	.....	21,450

Ambergris Containing Less Than 10 Per Cent. Alcohol.

	Pounds.	Dollars.
1881	.....	55
1891	71	3,731
1901	27	4,266
1913	608	10,964
1914	32	695
1915	1	87
1917	160	2,771
1918	204	3,643
1919	494	1,097
1920	48	540
1921	20	916
1922	100	12,635
1923	32	4,355

Amidophenol.

	Pounds.	Dollars.
1919	590	1,475
1920	438	942
1921	14,623	11,699
1922	.....	.....
1923	32	4,355

Imports Into the United States

Ammonia, Carbonate of.

	Pounds.	Dollars.
1871	1,346,448	112,303
1881	315,537	42,363
1891	912,886	62,293
1901	181,701	12,204
1913	258,376	16,173
1914	391,981	25,195
1915	784,821	49,122
1916	357,280	25,018
1917	244,840	18,264
1918	76,160	6,732
1919	85,762	15,757
1920	271,787	32,288
1921	238,820	21,897
1922	742,067	38,005
1923	742,849	43,816

Ammonia, Chloride.

	Pounds.	Dollars.
1871	1,083,496	79,551
1881	1,281,867	107,976
1891	3,609,583	195,078
1901	4,772,364	245,163
1913	10,387,148	504,330
1914	9,254,539	470,566
1915	4,788,325	241,713
1916	1,965,464	122,174
1917	1,856,696	178,274
1918	1,000,262	97,994
1919	648,961	92,942
1920	5,295,692	563,130
1921	4,502,056	443,705
1922	6,647,610	338,555
1923	3,240,655	174,996

Ammonia, Liquid Anhydrous.

	Pounds.	Dollars.
1891	14,210	5,870
1901	.....	.....
1913	.....	.....
1914	.....	.....
1915	307	35
1916	.....	.....
1917	200	46
1918	2,698	1,039
1919	.....	.....
1920	12,512	4,305
1921	14,038	6,120
1922	102	48
1923	107,844	4,203

Ammonia, Nitrate of.

	Pounds.	Dollars.
1914	2,766,000	132,849
1915	2,274,000	193,907
1916	.....	.....
1917	87,300	4,015
1918	74,101	4,287
1919	15,755	1,871
1920	18,292,080	1,360,153
1921	28,417,403	1,823,363
1922	44,724,215	2,628,308
1923	22,732,060	1,433,472

Ammonia, Perchlorate of.

	Pounds.	Dollars.
1914	70,253	6,337
1915	72,576	6,515
1916	.....	.....
1917	275	53
1918	465	165
1919	1,768	402
1920	452,356	85,649
1921	4,502,050	413,470
1922	3,888,039	298,780
1923	496,683	23,635

Ammonia, Phosphate of.

	Pounds.	Dollars.
1913	7,433	493
1914	205,764	13,462
1915	71,782	5,394
1916	810	40
1917	1,000	206
1918	1,316	336
1919	.....	.....
1920	.....	.....
1921	14,232	1,787
1922	27,947	2,980
1923	409,182	38,556

Ammonia, Sulphate of.

	Tons.	Dollars.
1891	9,950	483,196
1901	14,846	694,454
1913	61,113	3,660,064
1914	83,597	4,900,058
1915	64,417	3,215,139
1916	19,404	1,371,007
1917	8,176	647,271
1918	3,983	467,999
1919	1,964	288,469
1920	2,586	343,107
1921	2,537	226,300
1922	6,356	314,269
1923	1,879	121,673

Aniline Oil.

	Pounds.	Dollars.
1871	.....	169
1881	69,899	18,556
1891	1,489,908	299,662
1901	1,530,950	143,268
1913	2,015,318	171,047
1914	1,444,772	116,628
1915	1,407,305	240,165
1916	104,836	28,130
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	220	72
1922	11,243	1,799

Not stated separately after 1922.

Aniline Salts.

	Pounds.	Dollars.
1881	.....	66,152
1891	.....	713,732
1901	7,575,515	589,535
1913	4,976,108	371,198
1914	3,083,467	222,728
1915	895,439	130,280
1916	16,084	3,978
1917	.....	.....
1918	21,273	3,250
1919	.....	.....
1920	.....	.....
1921	4	1
1922	18,316	12,109

Not stated separately after 1922.

Aniline Oil and Salts.

	Pounds.	Dollars.
1923	85	231

Annatto, Roucou, Rocoa or Orleans, and All Extracts of.

	Pounds.	Dollars.
1871	.....	32,657
1881	270,597	37,039
1891	696,429	25,724
1901	412,125	13,498
1913	405,024	19,991
1914	507,250	25,341
1915	809,903	53,174
1916	603,271	69,811
1917	669,445	78,017
1918	749,782	73,294
1919	205,059	12,549
1920	917,932	38,927
1921	697,333	25,133
1922	856,731	34,296
1923	478,479	35,702

Anthracene and Carbazole Derivatives (except oil) and Colors and Dyes Derived Therefrom.

	Pounds.	Dollars.
1917	399,300	426,198
1918	35,733	28,018
1919	65,808	82,720
1920	84,751	120,774

Stated separately after 1920.

Anthracene and Carbazole Derivatives —Colors or Color Lakes

	Pounds.	Dollars.
1921	223,324	493,155
1922	66,547	73,705
1923	21,083	53,055

Anthracene and Carbazole Derivatives —Dyes

	Pounds.	Dollars.
1921	240,718	211,799
1922	363,736	745,041
1923	164,661	252,781

Anthracene and Anthracene Oil.

		Dollars.
1914	.....	32,175
1915	.....	40,949
1916	.....	2,551
1917	.....	2,258

Stated separately after 1917; see following classes.

Anthracene.

	Pounds.	Dollars.
1918	.....	.....
1919	95,025	3,008

Stated separately after 1919; see below.

Anthracene, Purity Less Than 30 Per Cent

	Pounds.	Dollars.
1920	7,551	506
1921	197,367	17,012
1922	89,562	687
1923	240,380	8,045

Anthracene, Purity of 30 Per Cent. or More

	Pounds.	Dollars.
1920	39,439	7,018
1921	822,740	98,448
1922	.....	.....
1923	2	2

Anthracene Oil.

	Gallons.	Dollars.
1918	11,900	2,010
1919	11,135	2,260
1920	12,694	3,294
1921	13,405	6,725
1922	8,513	2,050
1923	26,845	5,401

Anthraquinone

	Pounds.	Dollars.
1920	3,147	2,643
1921	46,327	21,422
1922	93,153	62,445
1923	.....	.....

Antimony Oxide, Salts and Compounds of.

	Pounds.	Dollars.
1913	1,819,323	97,447
1914	2,623,084	248,164
1915	1,797,265	219,605
1916	511,848	100,814
1917	192,099	46,190
1918	37,724	13,744
1919	267,883	11,378
1920	569,052	20,274
1921	315,427	18,256
1922	63,296	5,859
1923	3,579,780	245,110

Antipyrine.

	Pounds.	Dollars.
1914	7,686	11,608
1915	606	1,085
1916	222	2,202
1917	6,429	46,110
1918	22,786	92,653
1919	14,487	160,902
1920	15,656	72,556
1921	3,836	16,194
1922	7,066	10,293
1923	12,688	18,897

Antitoxins, Vaccine Virus, and All Other Animal Serums Used for Therapeutic Purposes.

		Dollars.
1913	.....	5,032
1914	.....	19,019
1915	.....	12,826
1916	.....	8,225
1917	.....	11,460
1918	.....	6,009
1919	.....	6,076
1920	.....	6,907
1921	.....	7,314
1922	.....	2,645
1923	.....	5,866

Apatite.

	Tons.	Dollars.
1901	152	2,004
1913	2,930	22,535
1914	92	796
1915	.....	.....
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	29	825
1920	70	2,648
1921	72	2,286
1922	.....	.....
1923	.....	.....

Apricot and Peach Kernels.

	Pounds.	Dollars.
1913	18,769	3,085
1914	17,800	2,862
1915	67,164	3,398
1916	11,926	2,497
1917	250,075	21,430
1918	231,465	16,032
1919	72,228	12,411
1920	22,177	9,051
1921	73,479	12,733
1922	11,217	1,343
1923	221,462	9,854

Argols or Crude Tartar, or Wine Lees, Crude.

	Pounds.	Dollars.
1871	4,024,731	590,453
1881	13,712,528	2,195,420
1891	21,631,507	2,199,263
1901	29,116,816	2,527,281
1913	29,476,172	2,021,491
1914	5,712,667	545,105

Class dropped under 1913 tariff; see below.

Argols or Crude Tartar, or Wine Lees, Crude or Partly Refined.

	Pounds.	Dollars.
1914	23,810,048	2,654,618
1915	28,814,957	3,122,326
1916	34,602,184	5,233,516
1917	24,142,073	3,886,854
1918	30,364,538	5,312,886
1919	32,399,932	5,336,959
1920	23,578,221	3,282,315
1921	26,569,756	3,042,334
1922	13,744,192	1,216,700
1923	21,949,727	1,738,874

Arrowroot, Unmanufactured.

	Pounds.	Dollars.
1871	592,318	28,889
1881	69,206	8,910
1891	452,960	17,136
1901	64,601	3,908
1913	11,327	688
1914	8,615	516
1915	134	5
1916	5,987	302
1917	30,776	1,613
1918	15,998	2,993
1919	35,752	7,208
1920	1,454,626	73,347
1921	133,361	11,214
1922	1,720	229
1923	7,166	877

Arsenic, and Sulphide of, or Orpiment.

	Pounds.	Dollars.
1871	1,329,693	29,822
1881	2,225,425	54,056
1891	5,343,229	161,367
1901	5,936,629	278,537
1913	8,475,592	354,284
1914	4,148,928	169,614
1915	3,981,661	178,756
1916	2,794,254	122,795
1917	2,373,701	175,811
1918	7,691,028	654,282
1919	7,038,146	563,335
1920	6,470,700	472,710
1921	8,801,293	794,215
1922	7,520,571	471,296
1923	4,817,824	429,959

Artists' Colors, in Tubes, Pans, Cakes, Etc.

		Dollars.
1913	.....	136,894
1914	.....	211,305
1915	.....	186,729
1916	.....	129,683
1917	.....	163,958
1918	.....	91,220
1919	.....	85,860
1920	.....	126,028
1921	.....	236,802
1922	.....	187,635
1923	.....	214,539

Asbestos, Unmanufactured.

	Tons.	Dollars
1881	.....	27,717
1891	.....	308,498
1901	.....	427,333
1913	76,952	1,760,845
1914	76,458	1,678,782
1915	68,087	1,513,631
1916	98,970	2,625,008
1917	115,772	3,944,823
1918	117,183	5,384,735
1919	117,808	6,503,948
1920	122,817	8,087,782
1921	126,195	7,030,040
1922	75,827	2,946,128
1923	165,805	6,248,520

Ashes, Wood and Lye of, and Beet Root Ashes.

	Pounds.	Dollars.
1871	.....	40
1881	.....	8,622
1891	.....	42,624
1901	.....	76,306
1913	.....	36,493
1914	.....	27,884
1915	.....	41,522
1916	.....	43,839
1917	.....	55,226
1918	.....	47,932
1919	7,302,539	49,276
1920	8,537,614	58,175
1921	6,212,848	38,609
1922	5,043,755	23,172
1923	6,431,498	29,818

Asphalt and Bitumen, Crude, Except Limestone Rock Asphalt.

	Tons.	Dollars.
1871	1,302	14,760
1881	12,883	95,410
1891	78,039	251,137
1901	501,310	204,810
1913	188,725	750,685
1914	45,876	171,981
1915	70,561	465,717
1916	130,039	700,940
1917	161,622	896,989
1918	139,618	851,638
1919	95,214	595,786
1920	91,503	685,998
1921	128,913	1,307,290
1922	8,099	118,953
1923	134,224	1,101,097

Aspirin.

See "Acid, Acetylsalicylic."

Balsam, Balm of Gilead.

	Pounds.	Dollars.
1919	380	9
1920	50	4
1921	160	90
1922	93	25
1923	406	113

Balsam Copaiba, Crude.

	Pounds.	Dollars.
1871	96,283	34,114
1881	143,258	67,816
1891	171,834	63,253
1901	212,082	57,018
1913	206,447	66,361
1914	245,435	71,339
1915	273,616	59,921
1916	204,464	70,868
1917	308,545	124,122
1918	373,362	202,847
1919	300,659	180,967
1920	426,071	171,398
1921	260,769	69,792
1922	239,922	42,703
1923	223,212	38,408

Balsam, Fir or Canada, Crude.

	Pounds.	Dollars.
1871	.....	3,227
1881	15,510	3,033
1891	34,318	6,858
1901	20,728	5,948
1913	3,691	1,827
1914	13,864	12,505
1915	18,610	14,636
1916	7,113	3,934
1917	4,176	3,897
1918	3,698	1,404
1919	2,344	2,140
1920	2,763	3,570
1921	2,006	3,223
1922	1,455	1,501
1923	3,856	3,889

A Paint man ever dreams of the day when his material will be applied with a Fire Engine and Hose Pipe, and well he should, when it can be done if you equip the man who holds the nozzle with a gas mask and the floor is strong enough to sustain the weight of material deposited thereon.

The contemplation of such conditions surely bring to the poor Paint Brush makers nightly disturbing visions (nit) reminding them of the day when their Brushes will no longer be needed.

Yours for quality paint brushes,

Geo. D. Pushee

for J. C. Pushee & Sons.

Imports Into the United States

Balsam, Peru, Crude.

	Pounds.	Dollars.
1871	2,237	3,878
1881	6,561	7,539
1891	10,653	13,104
1901	.....	.....
1913	48,996	61,702
1914	25,021	29,701
1915	27,506	32,735
1916	40,657	112,270
1917	58,933	175,355
1918	44,082	115,035
1919	64,879	163,568
1920	57,752	176,788
1921	50,089	98,422
1922	57,328	69,116
1923	56,414	68,311

Balsam, Styrax or Storax, Crude

	Pounds.	Dollars.
1891	3,432	583
1901	3,325	517
1913	35,861	5,223
1914	5,607	798
1915	11,445	1,550
1916	11,696	5,528
1917	10,892	26,550
1918	14,788	22,616
1919	.....	.....
1920	3,678	3,004
1921	30,445	67,120
1922	7,589	5,159
1923	26,825	10,464

Balsam, Tolu, Crude

	Pounds.	Dollars.
1871	15,275	6,516
1881	39,995	18,791
1891	54,244	12,264
1901	56,785	12,010
1913	57,277	29,552
1914	42,138	19,063
1915	39,750	13,993
1916	63,579	17,233
1917	62,820	18,255
1918	49,869	23,296
1919	58,194	44,603
1920	83,829	90,974
1921	27,871	23,101
1922	44,359	22,615
1923	51,087	24,098

Balsam, All Other, Crude

	Pounds.	Dollars.
1871	.....	3,227
1881	.....	315
1891	36,329	5,024
1901	54,994	29,231
1913	46,000	12,149
1914	33,311	12,410
1915	5,999	4,214
1916	2,503	1,312
1917	12,649	4,235
1918	34,773	48,560
1919	42,817	60,338
1920	17,330	8,354
1921	31,149	31,992
1922	45,271	20,657
1923	84,048	38,739

Barium, Carbonate of, Precipitated

	Pounds.	Dollars.
1913	2,182,517	20,143
1914	4,995,451	46,425
1915	344,588	7,864
1916	6	2
1917	804	177
1918	106,288	1,437
1919	.....	.....
1920	163,509	18,268
1921	1,816,693	45,859
1922	7,806,346	133,185
1923	8,483,442	185,743

Barium, Chloride of

	Pounds.	Dollars.
1912	2,926,159	26,341
1914	6,110,386	64,563
1915	4,686,029	60,532
1916	50	10
1917	6,614	608
1918	.....	.....
1919	3,290	733
1920	2,520,321	81,988
1921	2,779,966	113,695
1922	4,905,453	81,713
1923	3,907,046	129,392

Barium, Dioxide (Binoxide) of

	Pounds.	Dollars.
1913	3,507,508	215,500
1914	6,085,798	329,139
1915	4,084,144	317,262
1916	546,442	48,451
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	70,862	12,367
1921	684,640	80,138
1922	1,917,370	179,037
1923	2,140,050	188,574

Barks, in Crude State, Not Edible

	Pounds.	Dollars.
1901	.....	15,478
1919	400,367	51,274
1920	2,772,957	175,903
1921	4,272,993	242,177
1922	2,627,953	72,092
1923	1,644,663	32,591

Bark, Cinchona or Other, from Which Quinine May Be Extracted

	Pounds.	Dollars.
1871	1,286,095	697,547
1881	4,219,403	1,846,280
1891	2,672,364	301,085
1901	4,196,419	781,895
1913	3,329,973	354,593
1914	3,654,968	404,411
1915	3,951,196	561,802
1916	3,967,320	777,637
1917	2,531,397	685,936
1918	3,121,958	779,403
1919	3,866,158	803,081
1920	5,242,724	1,132,874
1921	3,566,010	1,334,758
1922	766,589	276,833
1923	3,443,491	1,110,142

Bark, Hemlock

	Cords.	Dollars.
1871	.....	98,207
1881	102,932	492,561
1891	57,255	274,426
1901	16,749	65,313
1913	5,502	31,965
1914	4,483	25,655
1915	3,672	19,967
1916	3,388	17,855
1917	1,118	7,027
1918	270	2,624
1919	969	9,716
1920	2,481	29,454
1921	2,838	32,248
1922	3,205	31,492
1923	5,505	38,166

Bark, Mangrove

	Tons.	Dollars.
1913	17,578	374,506
1914	7,743	191,472
1915	8,326	222,066
1916	21,107	581,190
1917	10,565	297,897
1918	3,529	72,956
1919	2,817	125,603
1920	2,544	109,085
1921	7,156	344,413
1922	1,668	40,857
1923	8,906	199,724

Baryta, Sulphate of, or Barytes, Unmanufactured

	Tons.	Dollars.
1871	693	9,769
1881	.....	.....
1891	2,112	4,852
1901	2,775	6,959
1913	28,358	63,345
1914	32,550	63,270
1915	9,616	21,087
1916	15	245
1917	.....	.....
1918	5	63
1919	35	245
1920	2,058	10,405
1921	23,238	156,987
1922	9,500	64,763
1923	19,500	89,951

Baryta, Sulphate of, or Barytes, Manufactured

	Tons.	Dollars.
1891	1,812	19,196
1901	1,802	19,795
1913	4,594	36,819
1914	5,379	42,627
1915	1,755	14,997
1916	.....	2
1917	210	3,813
1918	.....	.....
1919	.....	.....
1920	107	653
1921	569	10,519
1922	1,579	24,440
1923	5,841	90,450

Bauxite, Crude

	Tons.	Dollars.
1901	16,763	63,597
1913	30,863	119,848
1914	23,576	86,871
1915	12,870	50,557
1916	3,450	17,194
1917	6,408	22,568
1918	2,238	10,045
1919	2,744	10,577
1920	11,748	77,391
1921	59,135	343,909
1922	11,644	52,468
1923	59,192	276,719

Bay Rum, or Bay Water

	Proof gallons.	Dollars.
1913	685	707
1914	483	620
1915	503	673
1916	335	341
1917	249	278
1918	641	796
1919	1,384	2,716
1920	14,532	13,666
1921	5,700	5,829
1922	12,336	49,718
1923	98,077	16,038

Beeswax

	Pounds.	Dollars.
1871	16,309	3,902
1881	7,003	1,415
1891	383,725	81,920
1901	217,641	57,219
1913	828,287	254,704
1914	1,412,695	477,745
1915	1,565,338	440,047
1916	2,284,283	618,856
1917	2,711,514	904,557
1918	1,950,513	678,148
1919	2,100,458	783,716
1920	8,919,510	1,354,782
1921	2,215,332	693,551
1922	3,100 971	580,723
1923	4,072,168	817,746

Beet Pulp, Dried

	Pounds.	Dollars
1920	26,531,967	537,965
1921	70,728,443	1,168,627
1922	10,878,161	79,934
1923	33,112,240	547,171

Benzaldehyde

	Pounds.	Dollars.
1919	955	716
1920	32,906	23,002
1921	2	4
1922	1,056	465
1923	2,770	4,022

Benzol

	Pounds.	Dollars.
1917	3,175,906	273,108
1918	3,073,948	216,640
1919	1,509,861	38,209
1920	170,519	2,547
1921	1,717,936	42,537
1922	458,949	9,651

Not stated after 1922.

Benzylchloride

	Pounds.	Dollars.
1920	1,150	452
1921	.....	.....
1922	.....	.....
1923	39	32

Bismuth (Metal)

	Pounds.	Dollars.
1871	.....	.....
1881	.....	.....
1891	116,174	47,047
1901	156,782	83,209
1913	151,030	210,747
1914	133,190	251,284
1915	34,237	257,176
1916	64,281	241,448
1917	88,465	72,587
1918	75,611	155,928
1919	76,539	196,113
1920	75,781	207,098
1921	96,692	218,376
1922	97,470	97,489
1923	108,475	159,670

Blanco Polish

		Dollars.
1913	.....	158,760
1914	.....	236,207
1915	.....	
1916	.....	
1917	.....	
1918	.....	
1919	.....	
1920	.....	
1921	.....	
1922	.....	
1923	.....	

Blanc Fixe, or Artificial Sulphate of Barytes, and Satin White or Artificial Sulphate of Lime

	Pounds.	Dollars.
1871	147,464	5,910
1881	11,330	2,027
1891	173,772	3,207
1901	2,328,525	28,481
1913	4,808,726	58,499
1914	4,752,474	60,041
1915	2,233,369	25,748
1916	492,723	11,523
1917	408,163	10,029
1918	179,200	2,376
1919	1,285	90
1920	41,108	1,267
1921	1,090,364	19,291
1922	3,651,152	55,643
1923	2,037,133	47,352

Bleacher's Blue

		Dollars.
1913	.....	4,143
1914	.....	14,922
1915	.....	14,125
1916	.....	14,922
1917	.....	19,048
1918	.....	5,166
1919	.....	5,107
1920	.....	2,433
1921	.....	2,491
1922	.....	5,069

Not stated after 1922.

Bloodchar

	Pounds.	Dollars.
1913	2,954	333
1914	26,674	1,789
1915	14,167	1,196
1916	15	16
1917	.....	.....
1918	.....	.....
1919	10,732	441
1920	.....	.....
1921	101,787	1,735
1922	69	2

Included in "Bone Char," etc., after 1922.

Blood, Dried

	Pounds.	Dollars
1871	.....	676
1881	.....	.....
1891	.....	1,594
1901	.....	138
1914	.....	391,947
1915	.....	227,648
1916	.....	196,600
1917	.....	379,067
1918	.....	479,518
1919	14,281,776	518,630
1920	18,457,388	678,948
1921	7,412,909	290,609
1922	15,085,485	337,349
1923	22,266,402	800,993

Blues, Such as Berlin, Prussian, Chinese, Etc., in Pulp, Dry or Ground In, or Mixed With Oil or Water

	Pounds.	Dollars
1871	19,185	7,133
1881	47,031	8,859
1891	181,451	48,074
1901	154,753	40,234
1914	275,174	50,149
1915	547,299	112,904
1916	185,294	110,901
1917	373,074	209,524
1918	13,867	15,009
1919	8,222	5,879
1920	297,256	120,726
1921	275,757	124,204
1922	20 617	7,113
1923	18,190	7,871

Bone Black, Lamp Black, Etc.

	Pounds.	Dollars.
1891	.....	32,926
1901	.....	47,946
1913	.....	31,056
1914	.....	27,604
1915	.....	24,459
1916	.....	2,396
1917	.....	6,388
1918	.....	279
1919	69,977	5,118
1920	818,272	26,663
1921	439,126	28,757
1922	518,809	25,717
1923	1,787,243	119,068

Bone Char, or Bone Black, Not Suitable for Use as Pigment

		Dollars.
1901	.....	2,082
1913	.....	12,484
1914	.....	77,717
1915	.....	120,715
1916	.....	86,724
1917	.....	80,103
1918	.....	11,865
1919	.....	69,813
1920	.....	312,330
1921	.....	433,712
1922	.....	80,812
1923	.....	85,807

Bones, Crude

	Pounds.	Dollars
1871	.....	27,183
1881	.....	312,697
1891	.....	332,911
1901	.....	353,184
1913	.....	565,566
1914	.....	829,730
1915	.....	756,015
1916	.....	735,700
1917	.....	826,142
1918	.....	1,010,871
1919	26,275,886	369,583
1920	94,593,269	1,500,142
1921	155,409,170	2,526,323
1922	41,202,190	450,049
1923	96,895,736	1,149,822

Bone Dust, or Animal Carbon and Ash, Fit Only for Fertilizer

	Tons.	Dollars.
1881	.....	19,666
1891	6,614	122,717
1901	2,185	38,097
1913	33,919	818,307
1914	41,446	1,036,493
1915	23,440	584,748
1916	20,595	527,079
1917	14,805	383,541
1918	8,428	285,882
1919	3,970	92,588
1920	6,867	248,176
1921	27,413	1,417,886
1922	18,234	495,445
1923	41,994	1,215,547

Borax, Crude

	Pounds.	Dollars.
1871	5	1
1881	.....	.....
1891	82,642	9,050
1901	501,137	18,291
1913	11,768	882
1914	686	93
1915	.....	.....
1916	.....	.....
1917	83	3
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	6,854,490	107,788
1923	1,916,900	44,458

Borax, Refined

	Pounds.	Dollars.
1871	134,927	20,705
1881	4,136	866
1891	10,725	1,062
1901	.....	.....
1914	4,522	641
1915	2,265	314
1916	682	112
1917	614	109
1918	2	1
1919	478	166
1920	30,334	2,423
1921	226,469	12,505
1922	767	253
1923	62	15

Borate of Lime or Soda, and Other Borate Material, Crude

	Pounds.	Dollars.
1922	3,360,000	67,500
1923	10,317,008	226,584

Bort

		Dollars.
1871	.....	17
1881	.....	51,409
1891	.....	142,818
1901	.....	782,926
1913	.....	94,043
1914	.....	86,717
1915	.....	71,548
1916	.....	54,974
1917	.....	156,983
1918	.....	297,939
1919	.....	676,095
1920	.....	3,591,776
1921	.....	1,037,852
1922	.....	1,047,804
1923	.....	313,633

Bottle Caps, Collapsible Tubes and Sprinkler Tops, Not Decorated

		Dollars.
1913	.....	24,123
1914	.....	50,425
1915	.....	28,420
1916	.....	15,106
1917	.....	13,899
1918	.....	9,607
1919	.....	27
1920	.....	741
1921	.....	1,799
1922	.....	6,255
1923	.....	5,916

Bottle Caps, Collapsible Tubes and Sprinkler Tops, Decorated, Etc.

		Dollars.
1913	.....	203,357
1914	.....	547,034
1915	.....	214,522
1916	.....	178,081
1917	.....	190,864
1918	.....	55,532
1919	.....	11,118
1920	.....	73,551
1921	.....	46,733
1922	.....	94,154
1923	.....	60,566

Bristles.

1871	581,429	721,518
1881	891,877	955,118
1891	1,522,115	1,502,827
1901	50,449	21,983

Stated separately for later years.

Bristles, Crude, Not Sorted, Bunched or Prepared.

	Pounds.	Dollars.
1913	18,913	13,306
1914	27,036	25,280
1915	45,467	3,386
1916	92,300	15,289
1917	128,894	52,431
1918	33,483	44,145
1919	45,754	64,062
1920	100,737	148,938
1921	86,203	275,747
1922	5,816	11,032
1923	60,740	20,676

Bristles, Sorted, Bunched, or Prepared.

	Pounds.	Dollars.
1901	1,543,486	1,612,563
1913	3,479,666	3,819,904
1914	3,551,081	3,255,554
1915	3,726,625	3,348,583
1916	3,514,309	3,456,452
1917	4,456,284	4,678,801
1918	3,873,252	4,643,042
1919	3,358,111	4,599,516
1920	4,109,222	8,203,803
1921	4,008,241	8,534,333
1922	3,238,475	4,629,841
1923	5,407,504	7,070,472

Bromin

	Pounds.	Dollars.
1922	300	84
1923	1,462	670

Bronze, or Dutch Metal, in Leaf.

	100 leaves.	Dollars.
1871	.....	15,492
1881	.....	45,307
1891	.....	183,249
1901	983,371	87,864
1913	763,071	104,329
1914	792,578	110,316
1915	896,038	110,163
1916	291,396	38,559
1917	306,497	81,277
1918	473,835	136,394
1919	158,516	38,114
1920	240,944	71,535
1921	219,857	58,447
1922	158,028	32,586
1923	445,437	86,223

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	Pounds.	Dollars.
1891	130,367	19,555
1901	1,960,025	611,467
1913	1,405,502	420,306
1914	1,403,091	406,249
1915	1,063,206	288,654
1916	161,409	96,852
1917	524,032	283,976
1918	61,785	34,153
1919	11,099	5,093
1920	138,253	82,294
1921	745,041	288,435
1922	1,147,005	293,968
1923	965,056	287,363

Brown, Spanish, Indian Red and Colcothar, or Oxide of Iron.

	Pounds.	Dollars.
1871	.....	40,663
1881	.....	30,195
1891	.....	25,790
1901	.....	66,251
1913	.....	103,504
1914	.....	186,476
1915	.....	183,033
1916	.....	221,209
1917	.....	292,122
1918	.....	233,516
1919	9,791,019	280,076
1920	11,277,278	362,288
1921	16,656,187	523,306
1922	17,936,324	589,329
1923	20,273,852	724,244

Brown, Vandyke, Cassel Earth or Cassel Brown.

	Pounds.	Dollars.
1881	.....	6,451
1891	.....	106
1901	.....	.....
1913	.....	1,381
1914	.....	2,663
1915	.....	1,497
1916	.....	365
1917	.....	2,534
1918	.....	854
1919	33,600	2,573
1920	373,456	21,181
1921	417,875	13,314
1922	327,400	7,514
1923	478,281	12,882

Brushes, Feather Dusters and Hair Pencils.

		Dollars.
1871	.....	222,188
1881	.....	439,856
1891	.....	858,821
1901	.....	1,134,396
1913	.....	2,074,141
*1914	.....	563,160

*Figures cover period from July 1 to October 3, 1913.
Stated separately after October 3, 1913.

Brushes.

		Dollars.
1914	.....	1,605,964
1915	.....	1,667,239
1916	.....	1,309,423
1917	.....	2,188,034
1918	.....	2,979,414

Stated separately after 1918.

Brushes, Toilet, Comprising Hair, Nail or Hand Tooth,

	Number.	Dollars.
1919	43,835,308	2,208,099
1920	41,980,389	3,004,436
1921	34,442,124	3,102,492
1922	28,379,384	1,774,798
1923	43,822,871	2,306,445

Brushes, Hair Pencils

	Number.	Dollars.
1919	401,262	5,349
1920	934,468	9,603
1921	2,072,143	33,349
1922	3,046,264	22,495
1923	2,308,314	24,684

Brushes, All Other.

	Number.	Dollars
1919	7,899,454	205,327
1920	7,064,346	196,768
1921	12,747,257	586,508
1922	9,617,492	368,599
1923	17,916,236	765,302

Buchu Leaves

	Pounds.	Dollars.
1871	71,524	7,530
1881	93,850	14,012
1891	.....	1,314
1901	.....	22,238
1913	105,310	114,632
1914	125,308	130,352
1915	120,704	115,689
1916	94,520	85,452
1917	100,809	85,807
1918	50,685	42,434
1919	85,303	89,578
1920	86,535	138,843
1921	93,757	182,722
1922	67,576	44,974
1923	135,298	96,532

Cadmium.

	Pounds.	Dollars.
1881	.....	1,131
1891	.....	678
1901	.....	5,715
1913	1,000	1,508
1914	1,543	1,239
1915	264	278
1916	5	6
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	101	216
1922	.....	.....
1923	2,256	2,553

Caffeine.

	Pounds.	Dollars.
.....	15,543	45,446
1913	59,773	211,361
1914	80,350	260,323
1915	54,323	186,557
1916	1,267	15,228
1917	1,601	17,219
1918	6,471	64,529
1919	2,662	26,383
1920	2,992	14,884
1921	2,574	12,769
1922	8,519	34,655
1923	5,890	11,361

Caffeine Compounds.

		Dollars.
1914	.....	9,712
1915	.....	4,071
1916	.....	605
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	44
1922	.....	1,193
1923	.....	951

Calcium, Acetate, Chloride, Carbide and Nitrate.

	Pounds.	Dollars.
1871	.....	89,660
1881	.....	.....
1891	.....	.....
1901	.....	.....
1914	.....	53,455
1915	.....	1,208,394
1916	.....	3,206,389
1917	.....	3,808,281
1918	.....	3,422,190
1919	74,915,529	2,920,293
1920	76,847,476	2,911,179
1921	111,261,888	4,466,039
1922	47,667,755	1,775,973
1923	41,360,410	1,481,787

Calcium Cyanamid or Lime Nitrogen.

	Tons.	Dollars.
1913	14,656	777,774
1914	29,536	1,590,004
1915	20,564	919,574
1916	38,023	1,633,366
1917	44,146	1,951,104
1918	43,070	2,297,475
1919	46,149	2,705,475
1920	84,678	5,534,716
1921	34,702	2,443,450
1922	21,643	1,111,375
1923	57,678	3,086,271

Calcium, Metal

	Pounds.	Dollars.
1920	21,648	3,937
1921	2,269	2,692
1922	3,684	682
1923	41	141

Calcium, Tartrate, Crude.

	Pounds.	Dollars.
1914	118,256	8,849
1915	1,755,954	161,566
1916	1,101,255	135,638
1917	371,910	51,418
1918	118,355	19,715
1919	.....	.....
1920	212,519	27,230
1921	54,851	809
1922	218,000	12,080
1923	1,081,827	80,065

Calomel, Corrosive Sublimate and Other Mercurial Medicinal Preparations.

		Dollars.
1871	.....	3,147
1881	.....	5,640
1891	.....	5,244
1901	.....	15,931
1913	.....	42,728
1914	.....	37,589
1915	.....	25,694
1916	.....	13,158
1917	.....	9,974
1918	.....	2,124
1919	.....	915

Stated separately after 1919.

Calomel

	Pounds.	Dollars.
1920	3,026	3,254
1921	720	1,029
1922	2,581	1,876
1923	2,847	3,259

Capsicum, or Red Pepper, Ground or Unground

	Pounds.	Dollars.
1913	4,022,755	412,823
*1914	984,716	130,076

*Figures are for July 1 to October 3, 1913. Stated separately after October 3, 1913. See under Pepper.

Camomile Flowers.

	Pounds.	Dollars.
1881	.....	11,761
1891	.....	9,463
1901	.....	34,035
1913	.....	14,176
1914	.....	6,252
1915	.....	13,113
1916	.....	27,810
1917	.....	64,432
1918	.....	41,886
1919	72,404	14,394
1920	336,397	91,515
1921	167,700	36,893
1922	38,124	7,653
1923	383,828	67,240

Camwood.

	Tons.	Dollars.
1881	308	27,513
1891	3	220
1901	.....	.....
1913	½	191
1914	.....	.....
1915	1	209
1916	80	5,991
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	1	131
1923	.....	.....

Candle Pitch or Tar, and Palm or Other Vegetable Stearin.

	Pounds.	Dollars
1891	.....	13,411
1901	.....	4,837
1913	3,047,020	56,970
1914	2,203,222	40,004
1915	1,262,725	23,400
1916	853,140	21,596
1917	467,958	14,446
1918	103,349	7,063
1919	.....	.....
1920	160,050	40,705
1921	5,000	767
1922	40,826	2,025
1923	250,290	5,670

Candles and Tapers, Wax and Other.

	Pounds.	Dollars.
1871	16,018	5,894
1881	10,999	3,237
1891	19,842	3,968
1901	26,272	5,651
1913	.....	22,990
1914	.....	14,348
1915	.....	8,688
1916	.....	9,118
1917	.....	4,515
1918	.....	3,916
1919	28,348	6,708
1920	28,459	8,365
1921	34,991	9,369
1922	76,715	13,726
1923	74,096	14,816

Cantharis and Other Blistering Beetles

	Pounds.	Dollars.
1871	20,805	20,539
1881	16,008	11,087
1891	5,787	4,256
1901	22,800	9,435
1914	5,648	4,435
1915	14,047	12,266
1916	32,603	26,923
1917	25,625	47,857
1918	5,949	6,677
1919	5,289	10,270
1920	10,159	12,269
1921	4,573	5,196
1922	2,953	3,026
1923	17,400	11,678

Carbazole

	Pounds.	Dollars.
1920	259	108
1921	.....	.....
1922	8,820	3,865
1923	.....	.....

Carbon Tetrachloride.

	Pounds.	Dollars.
1914	572,910	28,300
1915	342,854	18,139
1916	.....	.....
1917	2	2
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	144,472	3,956
1923	22,039	603

Cassia Buds, Unground.

	Pounds.	Dollars.
1871	22,003	6,554
1881	64,199	9,897
1891	129,317	13,914
1901	6,545	1,366
1914	173,449	10,101
1915	193,332	10,304
1916	197,056	16,585
1917	218,563	14,131
1918	173,202	16,271
1919	2284,140	52,853
1920	211,688	23,399
1921	152,185	17,429
1922	793,701	45,098

Not stated separately after 1922.

Cassia, Cassia Buds and Cassia Vera, Ground

	Pounds.	Dollars.
1871	2,460	387
1881	.....	.....
1891	.....	.....
1901	.....	.....
1917	139,224	21,672
1918	5,400	844
1919	200	20
1920	.....	.....
1921	24,800	7,753
1922	.....	.....
1923	24,912	1,125

Cassia, and Cassia Vera, Unground.

	Pounds.	Dollars.
1871	1,632,646	291,972
1881	1,987,052	207,106
1891	3,611,621	137,591
1901	3,364,336	297,478
1914	5,216,426	358,218
1915	5,658,154	348,598
1916	7,487,156	493,161
1917	9,019,350	803,079
1918	5,817,554	429,341
1919	6,581,061	546,194
1920	8,102,110	858,667
1921	5,850,438	622,260
1922	9,981,916	587,018
1923	9,671,137	716,539

Castoreum

	Ounces.	Dollars.
1871	.....	5
1881	.....	62
1891	5,247	1,343
1901	527	232
1914	6,338	3,468
1915	13,035	5,344
1916	19,657	6,694
1917	24,427	8,250
1918	28,578	7,961
1919	21,067	6,941
1920	31,534	10,378
1921	8,288	2,385
1922	22,985	4,657
1923	3,807	545

Castor Beans

	Bushels.	Dollars.
1871	36,853	44,393
1881	36,540	34,770
1891	105,374	120,202
1901	191,288	255,594
1914	1,043,928	1,154,085
1915	924,605	993,580
1916	1,071,969	1,555,465
1917	767,075	1,185,775
1918	1,262,488	2,842,206
1919	627,835	2,188,256
1920	1,404,550	3,633,693
1921	663,031	1,343,521
1922	1,554,016	2,046,377
1923	1,504,941	2,876,226

Catgut, Whipgut or Wormgut, Unmanufactured.

	Pounds.	Dollars.
1891	.....	246,450
1901	.....	1,834
1914	.....	123,551
1915	.....	198,081
1916	.....	253,678
1917	.....	316,491
1918	.....	216,810
1919	24,813	328,796
1920	23,197	172,662
1921	47,440	324,058
1922	46,988	274,199
1923	56,856	297,720

Catgut, Whipgut or Wormgut, Manufactures of.

		Dollars.
1881	.....	194,132
1891	.....	13,451
1901	.....	77,532
1914	.....	62,466
1915	.....	68,492
1916	.....	9,790
1917	.....	4,867
1918	.....	8,602
1919	.....	14,446
1920	.....	8,001
1921	.....	21,170
1921	.....	6,850
1923	.....	42,394

Cellophone (Manufacture of Cellulose).

		Dollars.
1918	.....	5,046
1919	.....	10,761
1920	.....	6,585
1921	.....	31,847
1922	.....	12,957
1923	.....	145,711

Cement, Keene's, or Other, of Which Gypsum Is Component Material of Chief Value.

	Tons.	Dollars.
1914	1,225	19,290
1915	586	11,310
1916	520	8,766
1917	468	8,530
1918	305	6,362
1919	89	3,024
1920	197	5,976
1921	216	8,736
1922	186	5,788
1923	380	10,763

Cement, Portland, White, Non-staining

	Tons.	Dollars.
1920	639	24,652
1921	1	31
1922	.....	.....
1923	17,943	207,812

Cement, Roman, Portland and Other Hydraulic.

	100 pounds.	Dollars.
1871	.....	52,103
1881	.....	441,512
1891	10,905,989	3,970,565
1901	6,282,158	2,164,556
1913	313,092	124,395
1914	374,471	163,460
1915	342,292	132,864
1916	19,960	9,182
1917	4,196	2,929
1918	8,426	6,020
1919	32,135	51,063
1920	815,812	441,522
1921	1,317,177	965,591
1922	480,909	330,671
1923	2,437,715	1,243,561

Chalk, Unmanufactured.

	Tons.	Dollars.
1871	18,248	42,750
1881	51,546	52,784
1891	73,772	51,845
1901	.....	.....
1913	150,010	120,049
1914	128,947	102,907
1915	120,225	91,188
1916	131,368	95,861
1917	143,216	131,385
1918	107,391	120,792
1919	84,539	117,796
1920	112,292	179,543
1921	123,672	233,408
1921	78,084	123,123
1923	140,520	189,626

Chalk, When Ground, Precipitated, or Otherwise Prepared, Including Tailor's, Billiard, Red or French.

		Dollars.
1871	.....	4,663
1881	.....	3,851
1891	.....	18,643
1901	.....	.....
1913	.....	79,731
1914	.....	52,656
1915	.....	36,621
1916	.....	46,135
1917	.....	39,319
1918	.....	42,390
1919	.....	28,265

Stated as following classes after 1919:—

Chalk, Ground or Bolted or Precipitated

	Pounds.	Dollars.
1881	.....	.....
1891	.....	4,262
1901	.....	.....
1920	932,578	23,863
1921	2,390,250	58,184
1922	2,801,299	70,090
1923	6,838,100	123,659

Chalk, Precipitated, for Medicinal or Toilet Purposes

	Pounds.	Dollars.
1881	.....	.....
1891	433,736	18,643
1901	.....	.....
1920	1,021,885	27,899
1921	328,073	9,952
1922	95,170	1,779

Not stated after 1922.

Chamois Skins.

		Dollars.
1913	.....	149,057
1914	.....	107,324
1915	.....	64,267
1916	.....	108,346
1917	.....	176,578
1918	.....	88,923
1919	.....	7,950
1920	.....	61,689
1921	.....	74,454
1922	.....	82,150
1923	.....	138,858

Charcoal.

	Pounds.	Dollars.
1913	.....	25,557
1914	.....	60,266
1915	.....	39,978
1916	.....	45,174
1917	.....	73,583
1918	.....	10,915
1919	1,355,812	42,548
1920	4,722,508	83,329
1921	6,107,968	90,411
1922	1,244,176	14,030
1923	1,705,705	15,454

Chemicals, Drugs and Medicines in Capsules, Pills, Tablets or Similar Forms.

		Dollars.
1919	.....	395,505
1920	.....	449,497
1921	.....	652,998
1922	.....	616,882
1923	.....	528,500

Chestnut Extract for Tanning, Not Containing Alcohol

	Pounds.	Dollars.
1922	2,420	116
1923	.....	.....

Chicory Root, Raw but Unground.

	Pounds.	Dollars.
1913	2,203,057	32,939
1914	1,580,925	22,028
1915	471,966	6,717
1916	.....	.....
1917	241,299	29,131
1918	4,577	501
1919	.....	.....
1920	1,526,306	82,989
1921	6,052,078	391,923
1922	292	70
1923	468,733	10,390

H. Kohnstamm & Co.

INCORPORATED

83-93 PARK PLACE
NEW YORK

ESTABLISHED 1851

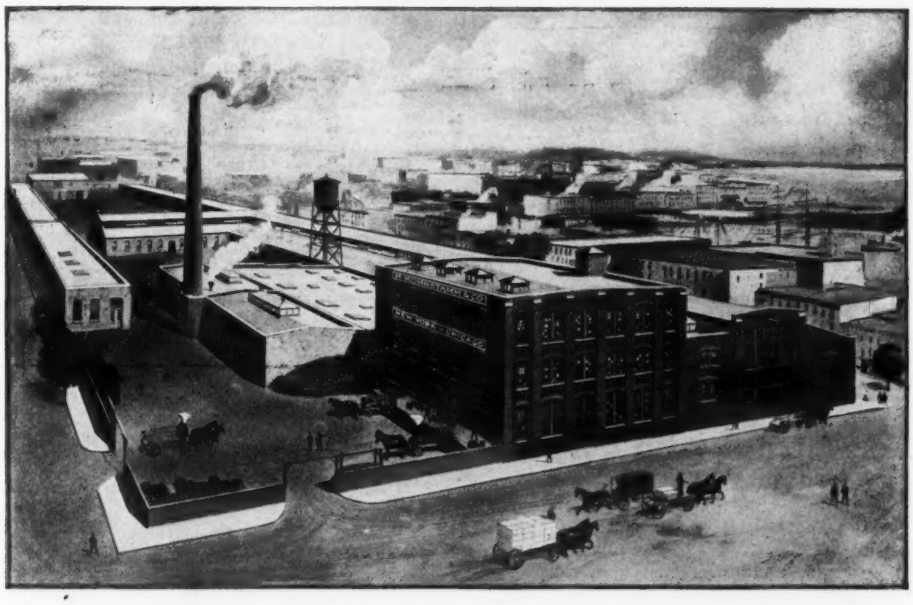
11-13 E. ILLINOIS ST.
CHICAGO

SEVENTY-THREE YEARS EXPERIENCE BEHIND OUR PRODUCTS

MANUFACTURERS OF

Lakes and Fine Colors

Genuine Fruit Extracts



Non-alcoholic Fruit Pastes

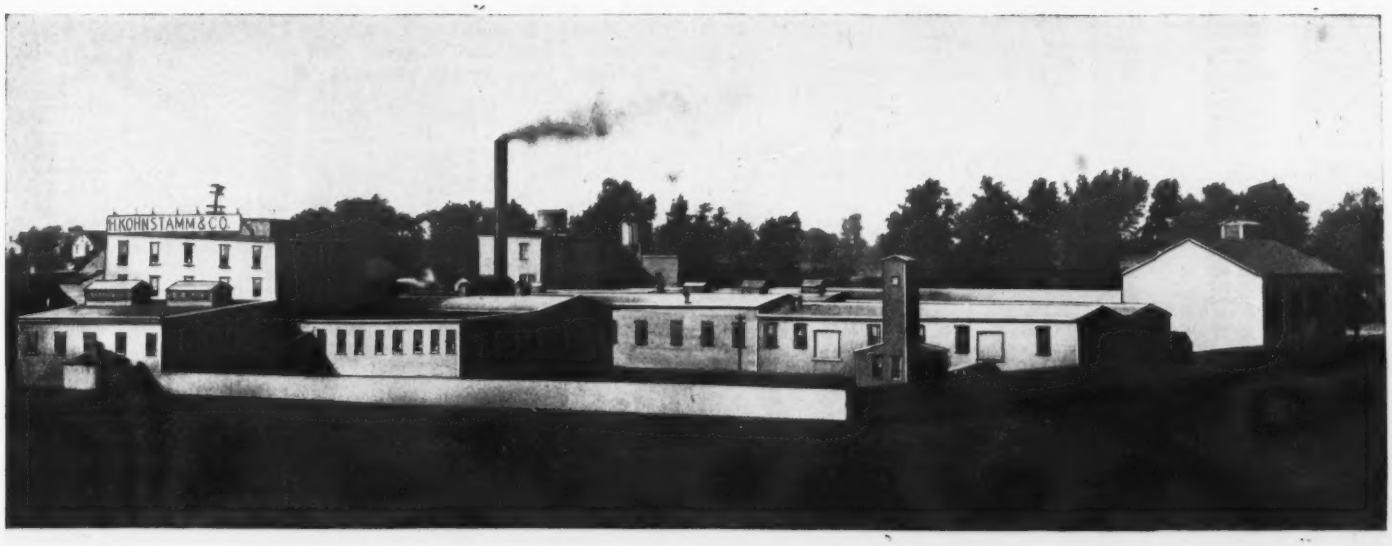
Factory—Columbia, Bay, Creamer and Hicks Streets, Brooklyn, N. Y.

Soluble Prussian Chinese and Milori Blues

C. P. Chrome Yellows
C. P. Chrome Green

Alumina Hydrate
No. 40 Carmine

CERTIFIED AND VEGETABLE FOOD COLORS



Factory—Cleveland and Lois Avenues, Camden, New Jersey

Imports Into the United States

Chicory Root, Burnt or Roasted, Ground or Granulated.

	Pounds.	Dollars.
1913	469,301	19,355
1914	765,656	31,988
1915	409,234	15,991
1916	5,657	260
1917	111,973	8,252
1918	824	97
1919	25	8
1920	816,287	54,244
1921	1,085,078	85,495
1922	157,965	12,838
1923	324,958	14,812

China Clay, or Kaolin.

	Tons.	Dollars.
1881	6,887	66,654
1891	33,706	232,899
1901	105,198	701,790
1913	263,838	1,753,822
1914	241,936	1,590,054
1915	230,484	1,506,555
1916	228,936	1,376,990
1917	206,729	1,212,099
1918	192,705	1,303,668
1919	146,260	1,436,786
1920	213,713	2,481,396
1921	247,267	2,805,865
1922	192,661	2,037,912
1923	255,132	2,762,642

Chloral Hydrate.

	Pounds.	Dollars.
1901	4,485	2,993
1913	.....	.....
1914	644	241
1915	112	25
1916	1	2
1917	.....	.....
1918	1,057	1,500
1919	.....	.....
1920	.....	.....
1921	1,850	1,711
1922	55	57
1923	7,489	3,005

Chloroform.

	Pounds.	Dollars.
1871	62	107
1881	50	33
1891	.....	.....
1901	259	79
1913	942	1,643
1914	2,444	990
1915	26	43
1916	.....	.....
1917	.....	.....
1918	1	1
1919	54	40
1920	2	4
1921	.....	.....
1922	4,512	615
1923	396	136

2,274 pounds of the 1914 figures were valued at only 25 cents a pound; 170 pounds at $2.48 per pound.

Chlorophyll, Extract of.

	Pounds.	Dollars.
1912	4,461	3,586
1913	7,508	8,544
1914	10,125	8,503
1915	3,490	3,671
1916	190	192
1917	.....	.....
1918	199	168
1919	363	511
1920	8	14
1921	1,248	2,242
1922	2,751	3,517
1923	1,881	1,716

Chrome or Chromium and Ferrochrome Metal

	Tons.	Dollars.
1913	522	89,291
1914	208	25,976
1915	81	6,943
1916	10	1,998
1917	10	1,851
1918	.....	.....
1919	.....	.....
1920	2,553,255	279,894
1921	2,945,624	315,504
1922	985,243	115,723
1923	3,032,761	271,770

Quantity stated in pounds after 1919.

Chrome, Yellow or Green, and All Other Chromium Colors.

	Pounds.	Dollars.
1891	76,601	11,194
1901	133,029	19,994
1913	148,299	23,405
1914	134,460	22,412
1915	124,668	21,171
1916	27,929	5,586
1917	28,078	4,202
1918	1,310	459
1919	5,127	2,074
1920	34,799	19,164
1921	322,050	23,894
1922	14,835	3,954
1923	83,837	15,320

Cinchona Bark, Alkaloids or Salts of, Except Sulphate of Quinia.

	Ounces.	Dollars.
1891	112,013	20,977
1901	817,315	289,630
1913	648,865	131,692
1914	452,292	117,915
1915	203,330	66,004
1916	281,100	82,167
1917	623,947	324,438
1918	3,131,958	769,408
1919	1,147,102	272,631
1920	1,112,598	268,509
1921	1,666,688	504,489
1922	766,582	276,833
1923	3,405,084	1,106,529

Cinchonidia.

	Ounces.	Dollars.
1891	156,229	3,856
1901	28,000	9,465
1913	309,395	43,680
1914	205,006	19,502
1915	69,487	8,223
1916	131,481	15,814
1917	221,272	17,590
1918	86,482	20,708
1919	86,000	25,295
1920	40,188	11,965
1921	89,844	35,558
1922	92,688	55,486

Not stated after 1922.

Cinnamon, and Chips of, Unground.

	Pounds.	Dollars.
1871	21,932	12,147
1881	10,397	3,853
1891	38,671	4,537
1901	483,992	77,685
1913	1,405,832	188,267
1914	308,967	44,304
1915	528,254	74,081
1916	410,594	50,026
1917	564,248	77,272
1918	686,466	111,004
1919	537,119	99,881
1920	607,183	143,254
1921	524,111	138,660
1922	415,863	66,867
1923	455,737	72,170

Civet.

	Ounces.	Dollars.
1891	3,952	6,294
1901	4,397	9,473
1913	11,289	15,557
1914	2,761	3,978
1915	1,820	2,086
1916	9,600	12,099
1917	9,230	13,148
1918	9,766	11,877
1919	15,315	17,253
1920	10,554	12,048
1921	8,662	16,877
1922	13,545	18,684
1923	17,599	31,313

Clay, Common Blue, for Manufacturing Crucibles, Glass Pots, Etc.

	Tons.	Dollars.
1891	2,965	38,621
1901	5,423	67,763
1913	23,213	211,005
1914	20,587	180,524
1915	12,274	107,146
1916	3,488	16,088
1917	412	2,353
1918	64	869
1919	80	493
1920	2,456	62,507
1921	4,564	98,029
1922	708	15,376
1923	9,182	101,230

Clay, Gross Almerode Glass Pot Clay

	Tons.	Dollars.
1920	755	24,207
1921	1,203	29,514
1922	2,524	41,705

Not stated after 1922.

Clay, Plasticene and Other Modeling.

	Pounds.	Dollars.
1913	.....	8,519
1914	.....	9,424
1915	.....	6,541
1916	.....	7,978
1917	.....	12,468
1918	.....	7,083
1919	37,875	6,025
1920	84,092	12,162
1921	139,475	22,150
1922	99,569	13,958
1923	52,835	8,313

Clays or Earths, Not Specially Provided For.

	Tons.	Dollars.
1871	12,160	103,144
1881	12,444	123,545
1891	19,582	154,518
1901	25,146	144,050
1913	37,370	167,614
1914	37,572	210,574
1915	36,072	153,041
1916	34,677	148,916
1917	30,942	138,171
1918	24,474	144,688
1919	23,199	199,332
1920	23,324	200,868
1921	41,259	396,303
1922	30,024	273,257
1923	48,967	398,541

Cloves, Unground.

	Pounds.	Dollars.
1871	1,137,896	64,547
1881	1,046,911	310,543
1891	2,510,066	284,181
1901	2,120,386	170,068
1913	2,734,992	481,751
1914	5,054,621	597,310
1915	5,346,665	595,546
1916	7,066,237	791,708
1917	3,867,851	532,345
1918	5,521,919	1,166,879
1920	6,730,252	2,101,971
1919	3,841,197	1,072,137
1921	4,124,625	1,146,930
1922	6,013,990	1,267,248
1923	6,952,152	1,174,679

Clove Stems, Unground.

	Pounds.	Dollars.
1871	52,446	1,452
1881	118,968	8,435
1891	425,137	8,660
1901	295,696	8,271
1913	32,830	1,333
1914	268	20
1915	4,391	760
1916	57,160	4,009
1917	1,120	174
1918	46,432	6,990
1919	.....	.....
1920	2,905,811	356,363
1921	914,115	61,796
1922	169,515	9,000
1923	49,936	9,999

Coal-Tar Colors or Dyes Not Specially Provided For.

	Pounds.	Dollars.
1871	.....	276,889
1881	.....	1,208,553
1891	.....	1,632,642
1901	.....	342,116
1913	.....	6,902,085
1914	.....	7,537,924
1915	.....	5,858,500
1916	.....	2,997,924
1917	.....	2,919,554
1918	.....	2,240,558
1919	1,806,753	2,525,024
1920	2,522,029	3,375,093
1921	2,786,139	4,023,113
1922	2,839,701	4,052,972
1923	3,071,020	4,341,188

Coal-Tar Preparations, Medicinal.

		Dollars.
1891	.....	137,925
1901	.....	383,559
1917	.....	381,256
1918	.....	314,188
1919	.....	222,322
1920	.....	111,921
1921	.....	225,240
1922	.....	260,878
1923	.....	145,555

Cobalt and Cobalt Ore, and Zaffer

	Pounds.	Dollars
1881	.....	.....
1891	2,024	54
1901	.....	.....
1913	310,951	30,713
1914	197,009	115,038
1915	24,095	8,225
1916	144,170	198,124
1917	136,883	191,966
1918	161,695	306,310

Stated separately after 1918.

Cobalt, Ore.

	Pounds.	Dollars.
1919	220,125	55,197
1920	17,035	2,823
1921	13,039	4,794
1922	7,657	3,235
1923	48,447	55,918

Cobalt, Metal.

	Pounds.	Dollars.
1919	156,372	511,683
1920	99,595	228,891
1921	133,857	322,293
1922	4,252	11,143
1923	264,933	555,295

Cobalt, Oxide of.

	Pounds.	Dollars.
1871	.....	2,766
1881	21,844	15,837
1891	34,700	63,433
1901	61,962	111,749
1913	28,729	14,405
1914	109,584	95,026
1915	109,155	180,087
1916	238,934	228,745
1917	236,822	220,263
1918	220,793	248,172
1919	143,083	215,441
1920	199,097	282,457
1921	187,177	442,501
1922	160,617	316,393
1923	288,249	579,081

Coca Leaves

	Pounds.	Dollars.
1901	.....	483
1913	1,175,780	139,035
1914	711,564	91,384
1915	1,048,312	98,870
1916	947,537	100,627
1917	634,932	90,131
1918	1,059,484	179,312
1919	1,023,322	186,477
1920	903,552	211,614
1921	306,308	63,767
1922	33,058	5,170
1923	302,352	91,960

Cocoa Butter, or Butterine, Refined, Deodorized Cocoanut Oil, and All Substitutes for Cocoa Butter.

	Pounds.	Dollars.
1913	3,634,986	990,568
1914	2,876,967	801,259
1915	126,028	35,863
1916	69,888	15,824
1917	24,289	7,581
1918	14,512	4,569
1919	5,716	3,310
1920	9,439	4,486
1921	441,633	96,172
1922	6,335,006	1,550,962
1923	2,338,242	590,909

Cocaine, Ecgonine, and Salts Of

	Ounces.	Dollars.
1901	.....	176,948
1913	3,715	4,835
1914	3,291	4,101
1915	179	422
1916	4,275	5,887
1917	19,388	38,627
1918	8,597	35,358
1919	19,382	68,584
1920	11,614	29,217
1921	6,172	22,521
1922	7,376	16,064
1923	2,603	566

Cocculus Indicus

	Pounds.	Dollars.
1881	1,081	22
1891	1,741	42
1901	9,192	166
1913	.....	.....
1914	4,446	121
1915	9,550	388
1916	.....	.....
1917	7,410	2,818
1918	.....	.....
1919	26,116	10,122
1920	4,325	612
1921	23,632	1,560
1922	.....	.....
1923	460	92

Cochineal

	Pounds.	Dollars.
1871	1,869,084	1,184,245
1881	1,072,144	527,836
1891	86,797	19,935
1901	114,414	20,414
1913	109,089	44,249
1914	138,139	52,260
1915	155,430	38,454
1916	772,416	358,914
1917	124,745	46,802
1918	169,547	75,924
1919	177,585	70,229
1920	166,014	72,718
1921	100,844	39,657
1922	191,102	67,011
1923	223,702	87,047

Cocoanut Meat, or Copra, Not Shredded, Desiccated or Prepared

	Pounds.	Dollars.
1913	34,288,592	1,531,864
1914	44,459,158	2,395,105
1915	88,690,392	3,390,157
1916	108,507,765	4,551,422
1917	247,043,127	12,530,112
1918	486,835,808	26,937,621
1919	300,965,246	19,847,782
1920	218,521,946	15,171,465
1921	192,245,515	9,923,789
1922	255,721,818	9,403,636
1923	306,089,995	12,604,008

Collodion and All Other Liquid Solutions of Pyroxylin

	Pounds.	Dollars.
1922	12,051	4,085
1923	73,107	50,976

Colombo Root

	Pounds.	Dollars.
1881	8,336	814
1891	.....	.....
1901	43,040	1,466
1913	27,565	794
1914	4,587	134
1915	8,751	458
1916	48,867	3,442
1917	92,349	4,999
1918	20,759	3,061
1919	2,195	548
1920	130,862	16,185
1921	425,190	32,646
1922	.....	.....
1923	2,440	22

Copperas, or Sulphate of Iron

	Pounds.	Dollars.
1871	1,842,308	9,063
1881	151,496	956
1891	896,937	4,104
1901	24,786	243
1913	6,196	174
1914	1,120	18
1915	4,750	95
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	377,613	4,869
1921	119,947	1,733
1922	240,517	2,022
1923	758,046	7,870

Copper, Sulphate of, or Blue Vitriol

	Pounds.	Dollars.
1871	45,809	2,339
1881	20	3
1891	8,432	310
1901	1,788	93
1913	11,051	728
1914	114,730	5,486
1915	45,239	2,156
1916	184,182	17,651
1917	15,952	2,233
1918	98,143	9,035
1919	120	36
1920	72,605	7,248
1921	676,628	38,370
1922	529,557	23,412
1923	10,083,949	518,381

Cork, Artificial, or Substitutes, Manufactured from Cork Waste or Granulated Cork

	Pounds.	Dollars.
1919	175,331	116,505
1920	.....	.....
1921	6	1
1922	220	41
1923	209	191

Cork Bark, Cut Into Squares, Cubes or Quarters

	Pounds.	Dollars.
1919	5,653	2,927
1920	1,353	462
1921	524	145
1922	1,174	105
1923	799	218

Cork Stoppers

	Pounds.	Dollars.
1891	.....	428,635
1901	1,286,593	534,064
1914	888,500	728,317
1915	326,887	250,342
1916	269,806	170,746
1917	437,550	275,161
1918	365,877	198,378
1919	119,000	69,657
1920	139,829	120,389
1921	218,932	156,512
1922	136,118	87,696
1923	209,677	137,674

Cork Disks, Wafers or Washers

	Pounds.	Dollars.
1914	2,065,567	1,675,683
1915	1,926,864	1,165,540
1916	695,776	487,588
1917	2,815,515	1,973,342
1918	2,316,018	1,445,851
1919	706,252	552,857
1920	1,377,958	857,525
1921	995,208	688,193
1922	375,463	247,043
1923	344,973	199,063

Cork Insulation, in Slabs, Boards, Planks, Etc.

	Pounds.	Dollars.
1917	4,038,372	181,698
1918	3,771,294	181,402
1919	2,834,907	177,389
1920	6,710,418	543,494
1921	9,112,352	779,673
1922	13,353,866	603,165
1923	12,720,305	605,375

Cork Paper

		Dollars.
1917	.....	138,214
1918	.....	107,462
1919	.....	105,751
1920	.....	85,349
1921	.....	40,243
1922	.....	23,242
1923	.....	13,119

Cork Waste, Shavings and Cork Refuse of All Kinds

	Pounds.	Dollars.
1917	120,677,624	1,743,184
1918	95,051,164	1,582,755
1919	101,762,928	1,827,541
1920	146,649,475	2,813,247
1921	130,669,984	3,161,790
1922	151,425,654	2,051,339
1923	167,371,170	2,082,557

Corkwood, or Cork Bark, Unmanufactured

	Pounds.	Dollars.
1871	.....	359,626
1881	.....	787,903
1891	.....	1,249,008
1901	.....	1,727,921
1913	133,227,878	3,152,070
1914	88,282,529	2,646,018
1915	24,897,803	1,420,581
1916	32,866,700	1,517,366
1917	40,278,005	2,125,633
1918	30,750,497	1,479,072
1919	26,505,971	1,736,100
1920	27,376,326	1,456,276
1921	47,804,241	2,373,006
1922	37,434,747	1,023,587
1923	68,817,945	1,826,133

Corrosive Sublimate

	Pounds.	Dollars.
1920	3,306	2,258
1921	605	683
1922	.....	.....
1923	97	94

Cosmetics and Toilet Preparations, Including Tooth Pastes, Powders, Etc.

	Pounds.	Dollars.
1913	.....	1,026,369
1914	.....	1,086,211
1915	.....	1,542,131
1916	.....	1,271,614
1917	.....	1,702,939
1918	.....	1,502,718
1919	817,171	1,549,184
1920	903,275	455,691
1921	399,657	410,854
1922	1,250,502	844,575
1923	1,346,505	804,433

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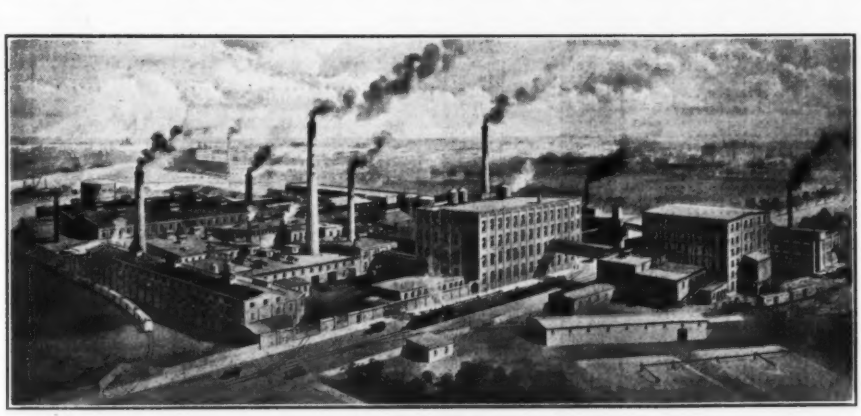
Standard of America

Package Blacks — Fine Grinding Blacks



FACTORY—CAMDEN, N. J.

CHEMICAL DEPARTMENT

MANUFACTURERS OF

Mono-Calcium Phosphate
Di-Calcium Phosphate
Tri-Calcium Phosphate
Phosphoric Acid
Phosphoric Acid Paste

Wilckes - Martin - Wilckes Co.

135 William Street, New York

Imports Into the United States

Crayons, Including Charcoal Crayons or Fusains

	Pounds.	Dollars.
1871	.....	2,582
1881	.....	10,047
1891	.....	18,028
1901	.....	9,030
1913	.....	12,925
1914	.....	18,359
1915	.....	15,090
1916	.....	11,535
1917	.....	12,945
1918	.....	10,282
1919	14,330	11,376
1920	16,777	11,284
1921	40,673	16,363
1922	97,358	27,525
1923	50,660	20,212

Cream of Tartar

	Pounds.	Dollars.
1871	3,605,401	639,467
1881	23	7
1891	778	158
1901	145	59
1913	66,718	11,797
1914	812,857	156,987
1915	764,868	166,922
1916	38,588	13,479
1917	98,609	28,488
1918	68,586	16,068
1919	.....	.....
1920	123,017	52,300
1921	578,641	166,048
1923	1,285,977	230,346

Crucibles of Stone and Earthenware

		Dollars.
1914	.....	10,974
1915	.....	6,764
1916	.....	7,641
1917	.....	58,161
1918	.....	7,860
1919	.....	1,432
1920	.....	9,880
1921	.....	8,634
1922	.....	6,951
1923	.....	10,586

Cryolite, or Kryolith

	Tons.	Dollars.
1871	.....	71,058
1881	.....	103,529
1891	7,129	95,405
1901	6,167	82,533
1913	2,519	52,440
1914	2,157	47,435
1915	4,569	91,417
1916	3,962	84,497
1917	3,835	163,475
1918	4,383	218,600
1919	19,951	97,500
1920	2,130	106,500
1921	3,866	194,158
1922	3,477	296,888
1923	5,125	256,759

Cubebs

	Pounds.	Dollars.
1871	64,431	3,686
1881	131,850	21,505
1891	65,404	46,530
1901	310,172	22,248
1913	166,307	53,663
1914	105,665	32,456
1915	87,538	23,451
1916	89,300	28,566
1917	123,558	43,442
1918	76,895	45,034
1919	147,604	57,564
1920	139,158	103,026
1921	127,667	121,595
1922	40,482	23,074
1923	106,068	64,726

Cudbear, Archil and Litmus

	Pounds.	Dollars.
1871	.....	40,253
1881	1,931,357	232,360
1891	402,241	37,889
1901	44,332	2,964
1913	27,971	1,775
1914	15,653	1,061
1915	24,827	1,680
1916	55,948	6,512
1917	49,163	6,105
1918	62,504	10,166
1919	44,432	6,012
1920	34,004	4,857
1921	46,647	7,874
1922	29,059	4,984
1923	.....	.....

Curry and Curry Powder

	Pounds.	Dollars.
1871	.....	569
1881	.....	3,893
1891	.....	5,103
1901	.....	7,852
1913	.....	12,087
1914	.....	11,807
1915	.....	9,872
1916	.....	8,608
1917	.....	10,624
1918	.....	9,248
1919	11,800	4,606
1920	35,975	13,651
1921	32,403	10,266
1922	20,537	8,465
1923	19,871	8,433

Cuttlefish Bone

	Pounds.	Dollars.
1901	193,494	23,590
1913	218,317	30,355
1914	309,540	56,051
1915	282,239	52,041
1916	214,659	36,576
1917	230,271	52,838
1918	247,250	57,536
1919	186,633	73,380
1920	360,538	122,047
1921	375,251	86,812
1922	206,028	29,026
1923	336,255	63,203

Dandelion Root

	Pounds.	Dollars.
1881	33,119	2,966
1891	59,929	3,593
1901	73,573	4,078
1913	108,434	8,269
1914	109,658	9,389
1915	112,814	12,137
1916	29,378	6,487
1917	108,713	23,912
1918	149,088	37,773
1919	77,165	16,600
1920	201,708	28,139
1921	182,907	29,021
1922	114,808	6,989
1923	97,564	9,209

Decalcomanias, in Ceramic Colors

	Pounds.	Dollars.
1913	80,094	144,890
1914	45,999	92,528
1915	22,411	62,462
1916	11,176	32,882
1917	8,471	27,393
1918	5,195	22,206
1919	2,984	14,304
1920	4,905	19,616
1921	6,301	30,741
1922	2,842	19,362
1923	94,073	136,331

Decalcomanias, Other, Except Toys

	Pounds.	Dollars.
1913	41,370	42,001
1914	132,805	131,494
1915	90,040	87,641
1916	51,840	55,634
1917	66,513	60,844
1918	34,858	41,300
1919	55,236	85,068
1920	71,740	78,516
1921	137,825	181,380
1922	138,244	181,071
1923	53,559	61,522

Diamonds, Glaziers', Engravers' and Miners', Unset

	Carats.	Dollars.
1871	.....	976
1881	.....	233,596
1891	.....	407,188
1901	.....	4,071
1913	.....	368,241
1914	.....	101,839
1915	.....	258,272
1916	.....	738,085
1917	.....	948,592
1918	.....	1,049,975
1919	18,793	632,129
1920	42,161	1,270,040
1921	41,058	1,088,441
1922	20,927	458,562
1923	36,611	1,017,689

Dimethylaniline

	Pounds.	Dollars.
1921	8,188,532	165,639
1922	23,565	3,828
1923	1	2

Divi Divi

	Pounds.	Dollars.
1901	853,573	12,505
1913	314,491	4,143
1914	29,032	461
1915	4,513,219	71,367
1916	16,467,455	310,572
1917	15,969,144	293,191
1918	15,739,331	274,891
1919	26,556,867	522,913
1920	26,632,840	580,972
1922	7,558,995	91,405
1923	11,153,869	145,125

Dyewoods, Not Elsewhere Specified

	Tons.	Dollars.
1871	16,598	647,224
1881	4,947	159,900
1891	1,002	28,980
1901	14,985	151,849
1913	155	1,794
1914	371	6,097
1915	1,530	20,674
1916	7,043	172,765
1917	6,745	48,211
1918	16,489	425,942
1919	2,153	52,196
1920	2,339	49,913
1921	2,342	51,082
1922	4,731	118,406
1923	14,663	477,328

Eggs, Poultry

	Dozens.	Dollars.
1871	.....	569,493
1881	8,569,568	1,087,250
1891	8,219,339	1,186,074
1901	127,685	10,572
1913	1,271,765	191,714
1914	5,823,749	1,059,595
1915	3,058,863	440,067
1916	733,313	110,638
1917	1,103,187	267,822
1918	1,619,259	482,636
1919	846,573	232,491
1920	1,348,383	466,753
1921	3,315,805	1,056,359
1922	1,223,540	327,566
1923	533,659	158,584

Eggs, Dried

	Pounds.	Dollars.
1913	20,284	7,537
1914	38,061	12,640
1915	30,575	10,385
1916	38,993	9,875
1917	1,590,563	417,417
1918	1,598,630	429,167
1919	741,972	439,799
1920	3,311,350	1,812,648
1921	2,419,997	1,086,318
1922	1,964,725	730,919
1923	2,355,214	584,016

Eggs, Frozen or Otherwise, Prepared or Preserved, in Packages

	Pounds.	Dollars.
1914	2,647,974	305,232
1915	2,815,511	198,654
1916	3,756,188	248,997
1917	2,171,338	178,627
1918	1,250,574	153,870
1919	1,210,321	245,494
1920	6,579,489	1,030,364
1921	10,133,235	1,593,782
1922	6,351,612	678,364
1923	5,546,892	612,040

Not stated prior to 1914.

Eggs, Yolks of

	Pounds.	Dollars.
1881	.....	2,454
1891	.....	18
1901	.....	195
1913	227,457	37,077
1914	675,058	168,972
1915	1,382,408	257,607
1916	2,919,019	373,152
1917	6,924,071	1,332,095
1918	8,077,730	2,029,420
1919	4,746,015	1,048,564
1920	9,044,186	3,909,927
1921	10,312,080	3,206,752
1922	8,379,098	1,873,490
1923	6,572,885	1,433,828

Enamel Paints

	Pounds.	Dollars.
1913	59,457	11,877
1914	96,174	17,316
1915	86,078	6,504
1916	54,546	8,987
1917	118,571	13,902
1918	2,470	336
1919	1,908	2,641
1920	22,848	11,540
1921	52,000	20,244
1922	57,795	17,249
1923	49,836	12,408

Ergot

	Pounds.	Dollars.
1871	17,805	6,898
1881	137,618	45,156
1891	88,620	26,932
1901	164,446	80,952
1913	223,793	208,364
1914	185,704	102,640
1915	141,915	92,459
1916	12,015	73,896
1917	165,701	80,647
1918	140,474	81,267
1919	116,813	149,890
1920	125,021	361,558
1921	213,491	690,224
1922	167,315	155,921
1923	273,784	140,055

Ether, Ethyl Chloride

	Pounds.	Dollars.
1913	11,241	7,903
1914	9,014	10,046
1915	.....	.....
1916	2,780	5,193
1917	8,917	5,207
1918	1,274	2,411
1919	22,495	2,250
1920	877	685
1921	7,009	6,482
1922	13,150	2,757
1923	17,335	19,850

Ether, Ethyl Acetate, or Acetic Ether

	Pounds.	Dollars.
1920	400	493
1921	.....	.....
1922	230	284
1923	27,163	11,658

Ethers, Containing Not More Than 10 Per Cent. Alcohol

	Pounds.	Dollars.
1921	269	796
1922	2,177	1,068
1923	7,125	4,220

Ethers, Containing More Than 10 Per Cent. Alcohol

	Pounds.	Dollars.
1901	698	1,119
1914	.....	1,868
1915	66	64
1916	140	169
1917	.....	.....
1918	880	182
1919	.....	.....
1920	.....	.....
1921	240	274
1922	1,316	1,319
1923	50,867	6,055

Ethers, Sulphuric

	Pounds.	Dollars.
1891	8	1
1901	109	30
1913	755	120
1914	915	131
1915	849	189
1916	62	23
1917	.....	.....
1918	8	7
1919	282,576	28,258
1920	100	34
1921	.....	.....
1922	988	384
1923	134	27

Ferrophosphorus Metal

	Tons.	Dollars.
1913	81	3,689
1914	26	1,136
1915	27	1,213
1916	12	617
1917	85	5,458
1918	10	1,055
1919	*109,141	3,639
1920	61,665	2,207
1921	14,000	780
1922	11,907	132
1923	.....	.....

* Pounds after 1918.

Ferrovanadium Metal

	Pounds.	Dollars.
1920	19,189	39,254
1921	.....	.....
1922	.....	.....
1923	1,160	3,770

Fertilizers, Not Specially Provided For

	Tons.	Dollars.
1891	14,792	221,467
1901	72,239	640,428
1913	115,257	2,100,816
1914	197,165	4,241,285
1915	100,155	2,208,193
1916	73,252	1,591,517
1917	71,374	1,521,307
1918	63,815	1,772,684
1919	55,775	2,260,253
1920	128,287	4,752,048
1921	113,353	5,434,425
1922	89,647	2,396,817
1923	117,426	3,646,490

Fish Sounds

	Pounds.	Dollars.
1916	396,031	96,201
1917	456,738	104,654
1918	331,248	78,499
1919	150,411	38,876
1920	80,781	9,210
1921	131,136	31,051
1922	38,496	11,242
1923	44,724	8,120

Filter Tubes

		Dollars.
1901	.....	6,053
1913	.....	6,038
1914	.....	7,437
1915	.....	6,639
1916	.....	2,769
1917	.....	7,359
1918	.....	3,135
1919	.....	2,481
1920	.....	3,105
1921	.....	2,832
1922	.....	630
1923	.....	693

Filter Masse or Filter Stock

	Pounds.	Dollars.
1914	486,476	53,974
1915	349,498	41,880
1916	34,349	8,356
1917	65,052	10,304
1918	48,210	13,917
1919	6,605	1,097
1920	65,750	9,048
1921	146,282	26,455
1922	109,089	11,792
1923	171,008	18,043

Flavoring Extracts

	Pounds.	Dollars.
1918	4,938	6,383
1919	3,431	11,208
1920	5,057	9,173
1921	43,625	30,693
1922	671,523	409,930
1923	772,164	387,240

Floral Essences Containing Less Than 10 Per Cent. of Alcohol

		Dollars.
1914	.....	87,086
1915	.....	145,973
1916	.....	265,956
1917	.....	408,936
1918	.....	250,531
1919	.....	34,610
1920	.....	174,097
1921	.....	176,198
1922	.....	185,859
1923	.....	989,811

Floral or Flower Waters Containing No Alcohol

		Dollars.
1913	.....	31,710
1914	.....	50,297
1915	.....	22,216
1916	.....	34,461
1917	.....	29,279
1918	.....	52,253
1919	.....	274,648
1920	.....	23,992
1921	.....	61,407
1922	.....	24,156
1923	.....	25,056

Fluorspar

	Tons.	Dollars.
1913	23,786	77,535
1914	13,063	50,943
1915	6,925	27,951
1916	8,808	32,482
1917	12,008	87,380
1918	10,936	117,279
1919	10,367	169,605
1920	11,312	146,151
1921	18,068	219,557
1922	8 661	86,678
1923	14,454	378,443

Formaldehyde Solution (Formaline)

	Pounds.	Dollars.
1914	14,228	1,443
1915	7,700	814
1916	79,857	8,054
1917	23,935	2,349
1918	223,402	40,691
1919	162	71
1920	195,878	92,944
1921	274,000	125,819
1922	45,594	8,246
1923	466	117

Fuller's Earth

	Tons.	Dollars.
1911	15,813	125,899
1912	16,175	138,111
1913	16,866	145,588
1914	19,367	174,276

Subdivided after 1914; see below.

Fuller's Earth, Unwrought and Unmanufactured

	Tons.	Dollars.
1871	326	3,383
1881	268	3,207
1891	.....	.....
1901	2,653	16,006
1915	745	5,268
1916	1,067	7,825
1917	975	7,846
1918	1,348	14,552
1919	657	7,800
1920	334	6,413
1921	1,222	16,561
1922	394	5,721
1923	850	12,569

Fuller's Earth, Wrought or Manufactured

	Tons.	Dollars.
1901	7,352	55,450
1915	18,754	163,540
1916	14,973	135,845
1917	15,077	139,071
1918	13,435	177,102
1919	13 036	205,219
1920	14,461	199,284
1921	11,015	145,377
1922	8,537	122,261
1923	9,634	142,093

Fustic Wood

	Tons.	Dollars.
1881	8,677	130,490
1891	9,160	132,842
1901	7,140	83,695
1913	3,785	53,303
1914	7,121	100,501
1915	12,354	179,959
1916	17,469	289,913
1917	5,195	142,431
1918	16,259	435,428
1919	4,486	83,096
1920	929	16,567
1921	2,504	36,683
1922	4,390	85,912
1923	4,335	67,249

Galalith (Artificial Ivory) and Manufactures of

		Dollars.
1913	.....	12,736
1914	.....	15,060
1915	.....	10,048
1916	.....	10,028
1917	.....	30,762
1918	.....	45,368
1919	.....	75,883
1920	.....	138,515
1921	.....	58,016
1922	.....	147,448
1923	.....	261,960

Gas Liquor, Ammoniacal

		Dollars.
1913	.....	35,245
1914	.....	29,336
1915	.....	31,466
1916	.....	26,733
1917	.....	23,335
1918	.....	5,059
1919	.....	.....
1920	.....	18,672
1921	.....	7,571
1922	.....	35,156
1923	.....	24,819

Gelatin, Unmanufactured

	Pounds.	Dollars.
1871	.....	55,095
1891	533,812	251,833
1901	700,770	303,054
1913	1,085,940	279,892
1914	2,439,440	768,215
1915	2,708,362	916,368
1916	1,657,065	319,173
1917	967,929	309,524
1918	369,115	133,873
1919	183,716	99,068
1920	1,112,569	573,889
1921	2,262,392	1,171,256
1922	2,460,908	959,719
1923	2,600,118	840,499

Gentian Root

	Pounds.	Dollars.
1881	102,297	3,393
1891	214,645	5,943
1901	574,212	16,758
1913	1,796,928	88,281
1914	2,181,935	109,119
1915	1,022,252	55,553
1916	788,307	63,240
1917	1,780,044	218,377
1918	382,590	46,616
1919	188,402	26,663
1920	913,343	92,524
1921	1,051,380	78,862
1922	206,656	13,002
1923	663,685	45,766

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Imports Into the United States

Ginger Root, Unground, Not Preserved or Candied.

	Pounds.	Dollars.
1901	3,507,680	194,605
1913	7,856,401	406,197
1914	3,006,132	145,792
1915	3,310,391	156,973
1916	5,593,845	391,965
1917	4,307,279	411,965
1918	5,157,531	431,245
1919	2,386,044	212,975
1920	9,068,228	1,205,962
1921	4,649,429	583,362
1922	6,071,760	583,301
1923	5,610,993	614,803

Glass Bottles and Bottle Glassware, Blown in a Mold, or Otherwise.

	Pounds.	Dollars.
1919	126,995	32,874
1920	81,665	32,801
1921	183,926	19,065
1922	335,116	34,444
1923	152,035	55,366

Glass Bottles, Vials and Jars, Plain Green or Colored, Molded or Pressed, and Flint, Lime, or Lead, Empty.

	Pounds.	Dollars.
1913	.....	205,267
1914	.....	214,130
1915	3,561,200	83,688
1916	1,351,813	24,049
1917	850,946	19,231
1918	114,725	5,635
1919	199,869	7,531
1920	485,891	25,503
1921	1,481,864	91,008
1922	1,401,725	67,923

Quantity not stated prior to 1915.
Not stated separately after 1922.

Glass Bottles, Vials, Jars, Demijohns and Carboys

		Dollars.
1923	.....	193,256

Glass, Cylinder and Crown, Unpolished, Silvered.

	Sq. feet.	Dollars.
1914	56,494	3,998
1915	54,393	2,021
1916	12	1
1917	429	45
1918	8,846	1,159
1919	150	15
1920	5,150	911
1921	7,711	1,843
1922	77,367	10,180

Not stated separately after 1922.

Glass, Cylinder and Crown, Polished, Not Bent or Decorated.

	Sq. feet.	Dollars.
1913	579,129	119,395
1914	615,337	121,814
1915	196,274	36,783
1916	108,578	19,893
1917	.....	.....
1918	255	307
1919	.....	.....
1920	15,176	7,697
1921	131,171	108,770
1922	144,215	59,653
1923	760,964	371,412

Glass, Cylinder and Crown, Polished When Bent or Decorated.

	Sq. feet.	Dollars.
1913	247,428	60,269
1914	147,482	36,116
1915	43,385	10,076
1916	5,321	1,353
1917	39	67
1918	.....	.....
1919	.....	.....
1920	668	232
1921	2,961	3,426
1922	2,671	508
1923	31,982	20,583

Glass, Cylinder and Crown, Polished, Silvered, Not Bent or Decorated

	Sq. feet.	Dollars.
1914	90,657	20,405
1915	89,346	19,597
1916	8,798	1,905
1917	.....	.....
1918	15	15
1919	.....	.....
1920	22,091	8,302
1921	111,357	156,064
1922	131,251	63,315

Not stated separately after 1922.

Glass, Cylinder and Crown, Silvered, Not Bent or Decorated

	Sq. ft.	Dollars.
1923	211,088	111,855

Glass, Cylinder and Crown, Silvered, Bent or Decorated

	Sq. feet.	Dollars.
1920	11,506	6,058
1921	28	35
1922	7,174	4,971
1923	34,465	15,532

Glass Demijohns and Carboys, Covered or Uncovered, Empty.

	Pounds.	Dollars.
1914	.....	3,899
1915	27,990	800
1916	4,781	298
1917	.....	.....
1918	2,528	209
1919	4,905	3,043
1920	250	16
1921	10,858	3,206
1922	24,639	473

Not stated separately after 1922.

Glass, Plate, Fluted, Rolled, Ribbed or Rough, or the Same Containing a Wire Netting Within Itself.

	Sq. feet.	Dollars.
1913	379,219	14,812
1914	436,587	15,207
1915	307,516	12,742
1916	69,272	4,526
1917	18,240	2,002
1918	17,656	2,369
1919	6,978	2,458
1920	19,053	3,940
1921	220,674	19,100
1922	293,718	29,388
1923	1,650,868	128,001

Glass, Plate, Fluted, Rolled, Ribbed or Rough, Ground, Smoothed or Otherwise Obscured.

	Sq. feet.	Dollars.
1913	9,617	2,247
1914	614,012	126,917
1915	4,872	1,074
1916	489	124
1917	5,952	402
1918	3,996	391
1919	.....	.....
1920	46,087	34,754
1921	439,004	317,730
1922	298,170	142,171
1923	15,891,418	8,801,516

Glass, Plate—Cast, Polished, Finished or Unfinished, Unsilvered, or the Same Containing a Wire Netting Within Itself.

	Sq. feet.	Dollars.
1913	1,068,427	247,015
1914	2,819,386	631,596
1915	440,718	100,400
1916	12,782	3,778
1917	13,484	13,787
1918	.....	.....
1919	.....	.....
1920	430,253	309,932
1921	3,484,398	3,008,343
1922	4,750,252	2,170,100
1923	3,117,692	1,437,985

Glass Plate—Cast, Polished, Unsilvered When Bent or Decorated, Etc.

	Sq. feet.	Dollars.
1913	88,189	47,449
1914	140,806	62,228
1915	27,121	14,531
1916	7,147	2,726
1917	3,334	1,642
1918	.....	.....
1919	273	210
1920	4,236	2,766
1921	28,396	26,663
1922	115,583	62,217
1923	204,314	131,654

Glass, Plate—Cast, Polished, Silvered and L. G. Plates, Exceeding in Size 144 Square Inches.

	Sq. feet.	Dollars.
1913	832	527
1914	18,229	4,883
1915	2,592	994
1916	2,557	515
1917	35	116
1918	181	82
1919	26	122
1920	6,939	5,459
1921	49,369	38,767
1922	74,312	38,745
1923	110,320	61,317

Glass, Plate—Cast, Polished, Silvered When Bent or Otherwise Decorated.

	Sq. feet.	Dollars.
1913	1,510	1,004
1914	19,659	5,854
1915	6,822	2,152
1916	2,570	2,135
1917	14	35
1918	104	94
1919	.....	.....
1920	66	115
1921	45	85
1922	213	508
1923	17,043	11,505

Glassware, Chemical, Including Flasks, Beakers, Graduated Ware and All Ware Known as Chemical Ware.

		Dollars.
1919	.....	56,999
1920	.....	160,597
1921	.....	156,426
1922	.....	185,383
1923	.....	355,832

Window Glass

(Stated in detail for later years.)

	Pounds.	Dollars.
1871	37,922,875	1,495,170
1881	45,612,593	1,471,914
1891	61,577,799	1,512,703
1901	29,967,415	970,073

Glass, Window—Cylinder, Crown, Unpolished.

	Pounds.	Dollars.
1913	20,458,971	804,732
1914	31,197,531	1,212,536
1915	16,532,210	679,228
1916	1,401,572	140,262
1917	2,594,979	277,222
1918	572,614	84,018
1919	360,953	25,616
1920	2,448,115	250,649
1921	29,173,325	1,639,579
1922	50,053,037	2,532,986
1923	49,752,402	2,177,748

Glass, Window—Cylinder, Crown and Common, Unpolished When Bent or Decorated.

	Pounds.	Dollars.
1913	1,773,023	153,723
1914	1,703,186	149,203
1915	460,017	56,223
1916	339,009	52,051
1917	370,522	47,069
1918	131,139	19,010
1919	159,103	29,829
1920	735,168	97,321
1921	1,060,676	121,594
1922	755,814	79 795
1923	828,142	117,911

Glauber Salts.

	Tons.	Dollars.
1871	118	2,879
1881	.....	15
1891	108	2,167
1901	305	6,826
1913	240	5,685
1914	228	5,557
1915	53	1,113
1916	1	33
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	1	36
1921	44	710
1922	7,102	80,710
1923	6,943	76,275

Glazes, Fluxes, Enamels and Colors, Ceramic and Glass.

	Pounds.	Dollars.
1914	.....	38,527
1915	.....	70,782
1916	.....	64,138
1917	.....	43,421
1918	.....	26,583
1919	19,046	22,839
1920	45,661	48,090
1921	53,907	60,753
1922	52,627	47,835
1923	150,703	102,213

Glucose.

	Pounds.	Dollars
1871	.....	412
1881	.....	107,370
1891	815,491	22,038
1901	94,767	2,317
1913	212,635	7,166
1914	262,223	9,025
1915	52,799	1,880
1916	1,233	313
1917	7,696	331
1918	105,551	6,482
1919	400	40
1920	40,267	3,040
1921	50	5
1922	3,631	142

Not stated after 1922.

Glue, Value Less Than 40c. a Pound

	Pounds.	Dollars.
1871	1,578,239	128,528
1881	1,888,005	243,353
1891	5,451,136	485,595
1901	4,530,390	567,992
1913	5,099,661	672,266
1914	22,545,681	1,792,612
1915	8,086,283	702,350
1916	3,050,794	219,177
1917	6,301,825	954,673
1918	2,013,312	342,017
1919	487,617	141,294
1920	1,422,594	373,616
1921	3,214,400	686,322
1922	4,148,656	557,555
1923	6,804,279	699,231

Glycerine, Crude.

	Pounds.	Dollars.
1871	213,568	34,498
1881	6,669,531	675,334
1891	11,983,796	874,161
1901	19,393,926	1,603,356
1913	34,399,129	4,247,032
1914	36,230,383	4,473,178
1915	18,661,929	2,185,368
1916	10,875,058	2,209,610
1917	4,078,803	1,260,454
1918	1,925,815	830,145
1919	1,163,952	388,680
1920	15,664,109	1,849,998
1921	11,056,067	1,576,018
1922	2,091,117	287,148
1923	12,893,119	1,289,947

Glycerine, Refined.

	Pounds.	Dollars.
1891	446,044	43,941
1901	1,195,580	128,940
1913	432,339	73,336
1914	551,306	90,562
1915	360,567	60,908
1916	303,463	132,469
1917	137,128	76,361
1918	19,750	17,438
1919	162,916	67,597
1920	1,911,278	414,316
1921	3,960,671	850,834
1922	75,958	16,649
1923	500,339	58,150

Gold Beaters' Molds and Skins.

	Number.	Dollars.
1871	.....	22,632
1881	.....	23,806
1891	.....	39,625
1901	.....	38,556
1913	.....	25,408
1914	.....	26,634
1915	.....	13,944
1916	.....	23,131
1917	.....	38,651
1918	.....	32,600
1919	77,635	9,235
1920	34,239	21,262
1921	22,003	62,918
1922	12,210	41,581
1923	12,366	46,097

Gold Leaf.

	100 leaves.	Dollars.
1871	161	3,507
1881	451	10,820
1891	167	3,062
1901	115	2,704
1913	30,902	28,283
1914	37,527	32,482
1915	13,614	12,549
1916	1,547	773
1917	14,370	12,463
1918	8,472	6,334
1919	14	10
1920	5,638	3,792
1921	65,999	64,114
1922	53 735	70,962
1923	87,119	106,625

Grease Enfleurage, Containing Less Than 10 Per Cent. of Alcohol

	Pounds.	Dollars.
1891	.....	263,950
1901	137,812	246,869
1913	92,446	124,195
1914	40,638	51,417
1915	28,407	31,578
1916	5,245	8,524
1917	26,636	53,945
1918	23,620	167,861
1919	13,357	196,345
1920	9,730	48,979
1921	19,726	241,958
1922	17,268	228,557
1923	20,472	192,432

Grease, Marrow, Crude.

	Pounds.	Dollars.
1918	44,366	8,774
1919	232,960	17,738
1920	37,511	4,035
1921	60,090	4,513
1922	25,243	801
1923	.....	.....

Grease, Wool, Crude

	Pounds.	Dollars.
1891	7,683,090	191,371
1901	11,627,387	260,646
1913	14,473,551	328,991
1914	12,284,248	292,988
1915	9,281,273	236,705
1916	7,617,713	350,535
1917	4,861,795	204,326
1918	4,481,486	338,877
1919	139,436	17,153
1920	2,866,366	140,909
1921	3,396,285	141,057
1922	6,281,426	149,009
1923	11,311,422	342,637

Grease, Wool, Refined

	Pounds.	Dollars.
1913	2,009,018	86,474
1914	2,691,591	121,847
1915	467,761	23,418
1916	214,599	14,794
1917	316,149	24,819
1918	31,218	2,552
1919	1,022	257
1920	44,031	1,504
1921	44,682	3,382
1922	159,528	6,396
1923	926,851	59,083

Grease and Oils, Sulphur Oil or Olive Foots

	Pounds.	Dollars.
1913	13,698,352	874,114
1914	11,714,795	772,055
1915	12,946,066	885,810
1916	12,684,936	1,035,292
1917	12,138,516	1,108,099
1918	1,712,640	175,814
1919	613,665	116,275
1920	10,409,509	1,603,499
1921	11,010,970	1,260,908
1922	16,034,593	1,080,945

Not stated after 1922.

Grease and Oils, All Other (Excepting Fish Oils), Used in Soap Making, Etc.

	Pounds.	Dollars.
1881	253,808	12,809
1891	2,611,262	108,422
1901	5,202,465	228,129
1913	7,334,605	291,934
1914	10,684,016	449,561
1915	17,300,356	709,330
1916	11,324,635	482,479
1917	8,428,689	482,036
1918	26,345,640	2,591,044
1919	27,684,496	2,585,209
1920	29,271,846	3,208,887
1921	20,411,764	1,407,092
1922	18,798,068	910,983
1923	1,578,473	86,180

Grease, All Other, Not Specially Provided For

	Pounds.	Dollars.
1871	.....	38,420
1881	4,048,028	175,883
1891	4,563,255	93,874
1901	.....	.....
1913	.....	14,207
1914	.....	106,041
1915	.....	84,764
1916	.....	81,289
1917	.....	23,713
1918	.....	5,367
1919	333,704	40,349
1920	5,006	986
1921	31,867	2,750
1922	120,713	5,429
1923	2,634	778

Guano

	Tons.	Dollars
1871	94,345	3,313,914
1881	23,452	339,552
1891	11,162	194,167
1901	3,122	23,762
1913	16,462	313,891
1914	21,853	754,727
1915	20,950	534,371
1916	15,732	425,210
1917	3,563	73,394
1918	10,663	308,268
1919	8,218	293,425
1920	18,796	1,550,098
1921	37,578	3,158,064
1922	1,305	48,675
1923	22,883	912,240

Guiacol and Derivatives

	Pounds.	Dollars.
1914	1,637	2,645
1915	6,907	11,125
1916	469	1,160
1917	200	6,458
1918	9,492	74,818
1919	2,063	40,407
1920	2,870	18,479
1921	3,465	12,951
1922	3,203	8,249
1923	5,906	12,865

Gum, Aloes

	Pounds.	Dollars.
1871	294,272	25,710
1881	171,303	24,878
1891	372,764	22,532
1901	841,130	29,048
1913	909,279	77,938
1914	918,402	64,983
1915	953,186	90,081
1916	1,597,811	152,140
1917	1,236,381	97,607
1918	1,230,595	95,846
1919	1,544,940	127,857
1920	1,771,344	178,048
1921	966,423	78,456
1922	955,009	58,454
1923	1,528,792	82,264

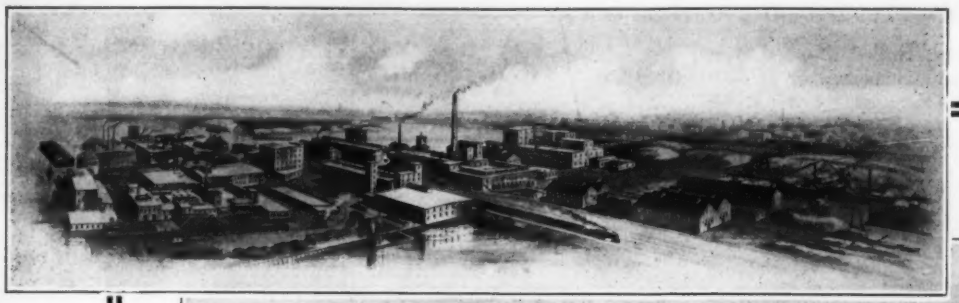
Gum, Amber and Amberoid, Crude

	Pounds.	Dollars.
1871	.....	180
1881	.....	42,400
1891	13,832	46,691
1901	16,947	119,405
1913	35,646	339,984
1914	22,485	117,375
1915	9,856	108,136
1916	443	3,599
1917	36	324
1918	734	1,280
1919	69	731
1920	3,406	12,036
1921	13,038	42,670
1922	4,164	24,789
1923	2,352	28,103

Gum, Arabic

	Pounds.	Dollars.
1871	12,317,518	1,700,249
1881	3,484,288	389,420
1891	986,760	124,235
1901	2,315,674	241,661
1912	6,586,737	568,631
1913	7,111,354	593,126
1914	2,727,447	182,370

Included in "Arabic or Senegal" after October 3, 1913.



Plant at Everett, Mass.

Plant at Woburn, Mass.

H Acid

Koch Acid

Chromotropic Acid

Oil of Vitriol	Battery Acid	Chloride of Zinc	Nitrate of Iron
Muriatic Acid	Ammonia Aqua	Sulphate of Alumina	Nitre Cake
Acetic Acid	Ammonia Anhydrous	Alumina	Salt Cake
Acetic Acid Glacial	Bisulphite of Soda	Glauber's Salt	Sulphide Sodium
Nitric Acid	Chloride of Alumina	Hydrosulphite	Merclor (Bleach and Disinfectant)

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148 STATE STREET **BOSTON, MASS.**

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NIAGARA ALKALI CO.

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"NIAGALK"

Main Office and Works
Niagara Falls, N. Y.

Imports Into the United States

Gum, Arabic or Senegal

	Pounds.	Dollars.
1914	3,492,682	240,066
1915	5,184,265	402,507
1916	7,617,494	679,928
1917	7,473,234	881,346
1918	6,033,341	1,242,281
1919	7,054,939	1,078,864
1920	6,926,635	881,780
1921	5,788,516	614,656
1922	8,894,748	718,553
1923	10,837,751	1,305,346

Gum, Asafoetida

	Pounds.	Dollars.
1871	90,130	12,789
1881	135,175	12,318
1891	3,424	261
1901	160,998	26,598
1913	134,579	55,868
1914	106,338	27,193
1915	51,727	12,656
1916	115,856	30,126
1917	107,486	52,877
1918	57,398	44,741
1919	48,119	71,261
1920	96,380	211,784
1921	162,008	271,807
1922	5,548	1,405
1923	100,198	30,684

Gum, Benzoin, Gamboge and Mastic

	Pounds.	Dollars.
1901	23,207	6,418
1913	106,967	41,981
1914	41,975	17,386
1915	106,506	42,940
1916	219,266	73,843
1917	170,950	68,305
1918	136,120	70,501

Mastic shown separately after 1917; Benzoin and Gamboge after 1918.

Gum, Benzoin

	Pounds.	Dollars.
1871	1,631	544
*1881	.....	.....
1891	42,144	16,712
1919	13,265	7,630
1920	18,948	8,068
*921	34,035	9,382
1922	15 323	7,032
1923	72,282	29,150

* See Copal, Kauri and Dammar.

Gum, Camphor, Crude, Natural

	Pounds.	Dollars.
1871	624,258	92,345
1881	2,055,165	350,503
1891	1,666,074	468,025
1901	2,175,874	738,929
1913	3,477,760	979,355
1914	3,476,908	929,725
1915	3,715,387	998,555
1916	4,674,530	1,263,233
1917	6,605,630	1,991,408
1918	3,638,384	1,451,050
1919	2,622,792	1,189,768
1920	3,961,252	5,496,098
1921	2,045,273	1,847,572
1922	1,667,278	1,057,243
1923	3,477,034	2,213,226

Gum, Camphor, Refined

	Pounds.	Dollars.
1871	1,974	559
1881	134	36
1891	63	21
1901	77,313	39,507
1913	463,410	153,020
1914	624,508	201,992
1915	1,140,783	406,587
1916	2,304,197	754,498
1917	4,533,918	2,063,177
1918	1,145,244	800,318
1919	1,497,159	1,889,482
1920	1,367,203	2,843,755
1921	801,529	1,150,003
1922	1,596,757	1,195,869
1923	2,176,687	2,285,812

Gum, Camphor, Synthetic

	Pounds.	Dollars.
1915	16	3
1916	.....	.....
1917	460	174
1918	.....	.....
1919	.....	.....
1920	116,100	229,238
1921	123,686	23,060
1922	.....	.....
1923	293,933	182,494

Gum, Chicle

	Pounds.	Dollars.
1911	5,368,566	2,551,344
1912	5,266,285	2,433,924
1913	6,920,416	3,059,116
1914	7,998,187	2,902,454

Stated separately after 1914.

Gum, Chicle, Crude

	Pounds.	Dollars.
1901	1,756,057	380,410
1914	1,080,665	389,717
1915	2,465,400	839,312
1916	2,728,159	915,817
1917	4,435,149	1,467,917
1918	4,580,501	2,076,143
1919	6,583,276	3,669,679
1920	6,959,169	4,838,836
1921	6,808,317	4,391,872
1922	7,015,797	3,836,141
1923	7,451,716	4,017,354

Gum, Chicle, Refined

	Pounds.	Dollars.
1914	472,766	214,257
1915	1,934,760	962,889
1916	2,302,186	1,283,309
1917	3,935,093	2,371,834
1918	2,028,367	1,473,992
1919	529,166	564,270
1920	448,219	550,828
1921	162,895	249,973
1922	4,464	6,803
1923	15,615	16,935

Gum, Copal, Kauri and Dammar

	Pounds.	Dollars.
1871	1,466,750	186,993
†1881	15,140,050	2,343,736
1891	15,245,524	1,637,677
1901	18,325,248	1,944,056
1912	24,824,399	2,017,737
1913	31,513,330	2,828,840
1914	9,207,797	959,808

Stated separately after 1914.

† 1881 includes Benzoin, Gamboge, Mastic and Shellac.

Gum, Copal

	Pounds.	Dollars.
1914	13,005,925	938,002
1915	12,528,887	813,985
1916	24,100,156	1,440,238
1917	25,621,685	1,583,070
1918	16,590,609	1,147,604
1919	18,921,007	4,001,022
1920	26,417,439	2,614,072
1921	32,188,183	4,145,167
1922	15,090,828	1,124,758
1923	32,133,896	2,267,282

Gum, Dammar

	Pounds.	Dollars.
1914	3,854,698	337,245
1915	5,388,644	563,056
1916	10,819,590	790,776
1917	9,200,064	797,115
1918	5,942,538	689,308
1919	4,270,900	528,458
1920	9,637,933	1,548,604
1921	5,710,548	1,249,864
1922	5,478,880	620,595
1923	12,479,672	1,687,050

Gum, Dextrine, Etc.

	Pounds.	Dollars.
1871	.....	10,072
1881	849,892	49,982
1891	6,228,352	212,968
1901	5,692,395	164,120
1913	5,096,891	180,296
1914	6,684,556	213,301

Stated separately after 1914.

Gum, Dextrine, Made from Potato Starch or Potato Flour

	Pounds.	Dollars.
1914	5,226,421	162,686
1915	4,595,949	154,337
1916	720,106	40,55*
1917	210,948	17,85.
1918	99,228	9,116
1919	421,971	39,533
1920	681,224	59,887
1921	566,670	35,824
1922	1,367,844	80,858
1923	1,711,615	66,956

Gum, Dextrine, Dextrine Substitutes, Burnt Starch or British Gum

	Pounds.	Dollars.
1914	471,491	18,180
1915	274,668	12,028
1916	154,882	10,049
1917	32,773	2,855
1918	505	50
1919	.....	.....
1920	77,238	6,764
1921	238,767	13,954
1922	302,022	15,932
1923	137,158	6,018

Gum, Dragon's Blood

	Pounds.	Dollars.
1871	.....	1,371
1881	.....	2,977
1891	2,088	541
1901	22,678	9,190
1913	14,553	5,916
1914	26,283	9,407
1915	23,110	8,446
1916	20,218	10,602
1917	48,026	19,137
1918	10,387	6,193
1919	24,064	10,121
1920	20,827	16,274
1921	90,508	11,758
1922	9,477	4,334
1923	43,916	14,211

Gum, Fir or Canada

	Pounds.	Dollars.
1871	.....	3,227
1881	.....	.....
1891	34,318	6,858

Not stated after 1891.

Gum, Gambier, or Terra Japonica

	Pounds.	Dollars.
1871	11,165,119	252,593
1881	38,629,547	1,688,394
1891	27,610,924	1,343,604
1901	26,811,197	824,444
1913	17,037,805	784,931
1914	16,449,663	625,855
1915	14,169,250	542,200
1916	12,602,251	888,985
1917	10,861,904	853,675
1918	8,956,082	953,000
1919	5,909,382	654,211
1920	10,207,013	852,663
1921	6,292,780	432,258
1922	9,817,593	391,482
1923	7,727,170	459,982

Gum, Gamboge

	Pounds.	Dollars.
1919	18,153	23,452
1920	470,739	117,560
1921	3,025	3,798
1922	4,904	4,895

Not stated after 1922.

Gum, Kauri

	Pounds.	Dollars.
1914	6,554,887	1,097,989
1915	9,530,267	1,444,315
1916	9,958,953	1,394,527
1917	6,667,474	1,018,582
1918	5,867,216	1,029,086
1919	4,703,810	718,001
1920	8,424,661	1,152,075
1921	6,718,182	1,197,262
1922	6,623,811	1,221,442
1923	9,999,534	2,188,144

Gum, Lac, Crude, Seed, Button and Stick

	Pounds.	Dollars.
1871	73,758	10,647
1881	194,709	52,760
1891	795,757	127,547
1901	57,992	7,392
1913	293,010	36,832
1914	992,425	143,222
1915	1,126,167	88,293
1916	3,485,975	291,176
1917	5,473,174	637,846
1918	1,715,791	312,584
1919	833,784	183,220
1920	2,424,936	728,417
1921	1,806,726	646,407
1922	1,805,298	241,536
1923	6,581,125	1,471,459

Gum, Mastic

	Pounds.	Dollars.
1918	63,545	9,075
1919	10,281	4,232
1920	20,796	12,399
1921	10,954	5,391
1922	42,895	16,266
1923	32,011	11,819

Gum, Rosin, Crude

	Pounds.	Dollars.
1913	299,983	12,605
1914	2,742,083	58,684
1915	1,505,790	42,085
1916	5,571,325	146,250
1917	129,848	3,380
1918	54,334	2,840
1919	261,853	11,064
1920	141,935	7,223
1921	1,903	126
1922	29,943	1,166
1923	494,430	20,455

Gum, Senegal

	Pounds.	Dollars.
1901	1,107,763	130,959
1913	172,528	16,254
*1914	140,097	10,609

*Included in "Arabic or Senegal" after October 3, 1913.

Gum, Shellac

	Pounds.	Dollars.
1871	423,537	70,757
*1881	.....	.....
1891	6,290,225	1,078,584
1901	9,617,593	1,278,297
1913	22,069,610	3,046,750
1914	16,824,130	2,686,480
1915	24,308,145	3,018,296
1916	25,927,553	3,301,378
1917	32,847,434	7,709,228
1918	22,841,360	9,514,651
1919	14,268,653	6,462,754
1920	34,151,209	22,178,484
1921	23,871,866	16,634,073
1922	30,767,666	15,656,900
1923	32,775,176	20,034,540

*See Copal, Kauri and Damar.

Gum, Spruce, Crude and Refined

	Pounds.	Dollars.
1918	274	294
1919	509	488
1920	789	752
1921	1,397	2,519
1922	2,664	4,039
1923	58	77

Gum, Tragacanth

	Pounds.	Dollars.
1881	315,918	127,312
1891	717,404	211,183
1901	1,071,367	365,737
1913	1,401,721	463,800
1914	1,301,545	460,364
1915	1,025,081	355,119
1916	1,129,704	590,128
1917	475,556	320,751
1918	525,445	279,284
1919	785,725	909,652
1920	1,519,386	1,788,079
1921	324,619	484,605
1922	665,817	398,786
1923	1,202,962	596,607

Gum, Tragasol

	Pounds.	Dollars.
1913	1,028,804	23,998
1914	913,077	20,310
1915	761,390	16,295
1916	931,503	21,587
1917	882,914	21,663
1918	503,045	22,237
1919	662,762	40,006
1920	567,550	27,406
1921	606,184	21,366
1922	734,295	26,720
1923	1,095,765	43,705

Gums and Gum Resins, in a Crude State, Not Elsewhere Shown

	Pounds.	Dollars.
1881	.....	244,577
1891	.....	1,621,530
1901	.....	87,537
1913	2,704,615	216,886
1914	3,733,839	239,824
1915	4,088,233	255,469
1916	4,963,037	258,837
1917	3,126,764	248,700
1918	5,273,222	625,960
1919	3,232,094	630,683
1920	6,866,439	1,093,332
1921	6,183,215	670,635
1922	7,505,216	532,226
1923	6,751,977	868,575

Hemlock Bark, Extract for Tanning, Not Containing Alcohol

	Pounds.	Dollars.
1871	.....	3,256
1881	.....	4,021
1891	768,710	14,958
*1901	3,424,390	101,840
1915	5,263,296	173,998
1916	5,577,989	300,287
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	117,113	4,712
1922	320,369	12,194
1923	79,145	2,887

*1901 includes "Quebracho extract."

Hide Cuttings, Raw, and Other Glue Stock

	Pounds.	Dollars.
1871	.....	123,664
1881	.....	227,131
1891	.....	353,948
1901	.....	1,055,788
1913	.....	1,773,786
1914	.....	2,126,632
1915	.....	1,504,325
1916	.....	970,313
1917	33,631,932	1,451,319
1918	21,415,345	927,923
1919	8,833,386	518,266
1920	26,248,159	1,666,252
1921	36,120,019	2,270,932
1922	25,222,414	1,149,883
1923	29,750,679	1,165,697

Honey

	Gallons.	Dollars.
1871	85,358	53,120
1881	51,158	29,542
1891	21,392	9,570
1901	129,136	58,688
1913	113,792	64,718
1914	49,163	30,291
1915	268,912	107,172
1916	124,268	55,592
1917	277,345	171,616
1918	159,339	213,006
1919	99,657	151,102
1920	764,244	1,019,250
1921	388,262	469,037
1922	187,441	107,740
1923	70,235	61,547

Hoofs, Horns, and Parts of, Unmanufactured

	Pounds.	Dollars.
1871	.....	15,264
1881	.....	398,211
1891	.....	587,643
1901	.....	311,924
1913	.....	320,192
1914	.....	254,872
1915	.....	156,126
1916	.....	110,169
1917	.....	171,718
1918	.....	357,399
1919	1,923,384	106,179
1920	4,894,749	292,353
1921	9,424,775	412,931
1922	2,158,131	140,782
1923	4,373,049	334,903

Hop Extract and Lupulin

		Dollars.
1901	.....	2,893
1913	.....	34,338
1914	.....	49,451
1915	.....	24,407
1916	.....	3,805
1917	.....	1,759
1918	.....	174
1919	.....	19
1920	.....	20,503
1921	.....	17,690
1922	.....	6,892
1923	.....	4,922

Hops

	Pounds.	Dollars.
1871	100,884	12,811
1881	475,428	111,906
1891	3,789,264	1,706,824
1901	2,489,069	827,943
1913	8,471,776	2,843,299
1914	5,360,748	2,775,882
1915	11,710,534	2,738,644
1916	664,284	147,638
1917	212,029	54,701
1918	112,811	61,201
1919	6	14
1920	1,866,641	1,078,558
1921	3,714,536	2,073,574
1922	822,291	343,658
1923	1,266,303	254,862

Ichthyol

	Pounds.	Dollars.
1901	28,619	33,421
1913	44,347	61,796
1914	66,957	92,485
1915	51,847	70,664
1916	69,227	59,470
1917	91,884	60,757
1918	65,982	43,541
1919	19,623	9,830
1920	98,870	91,927
1921	34,309	31,616
1922	107,119	140,314
1923	17,763	20,407

Incense

		Dollars.
1901	.....	702
1913	.....	14,037
1914	.....	24,382
1915	.....	4,328
1916	.....	5,481
1917	.....	9,963
1918	.....	12,951
1919	.....	32,440
1920	.....	94,877
1921	.....	102,850
1922	.....	62,040
1923	.....	80,139

India Rubber and Substitutes for, Crude—Balata

	Pounds.	Dollars.
1901	7,635	1,967
1913	1,318,598	766,772
1914	1,525,351	789,261
1915	2,473,228	963,384
1916	2,549,303	997,827
1917	3,284,533	1,647,906
1918	2,468,403	1,285,889
1919	1,238,852	593,633
1920	2,013,737	1,278,551
1920	1,979,990	1,043,567
1922	1,867,477	1,063,056
1923	1,755,857	979,800

India Rubber and Substitutes for, Crude—Guayule Gum

	Pounds.	Dollars.
1913	10,504,945	4,354,400
1914	1,475,804	607,076
1915	5,116,165	1,442,464
1916	2,826,960	881,023
1917	2,872,372	764,484
1918	3,242,340	1,037,030
1919	2,990,253	761,060
1920	1,314,913	278,175
1920	995,123	197,053
1922	285,200	57,040
1923	1,055,459	226,048

India Rubber and Substitutes for, Crude—Gutta-Joolatong, or Pontianak

	Pounds.	Dollars.
1901	9,435,740	257,322
1913	45,444,282	2,197,948
1914	24,224,955	1,175,335
1915	14,765,765	704,613
1916	28,381,105	1,347,176
1917	23,738,004	1,058,577
1918	16,109,009	969,144
1919	11,363,283	1,199,216
1920	18,402,162	2,432,883
1921	6,774,189	1,075,771
1922	5,782,265	453,245
1923	8,712,813	702,485

Indigo, Carmined

	Pounds.	Dollars.
1881	.....	329
1891	28,175	33,145
1901	11,061	9,789
1912	9,047	5,903
1913	16,329	9,986
1914	2,130	1,333

Not stated after October 3, 1913.

Indigo, Crude, Natural or Synthetic

	Pounds.	Dollars.
1913	7,712,488	1,103,898
1914	8,252,528	1,115,128
1915	7,983,112	1,604,767
1916	6,794,518	8,451,501
1917	*545,106	960,068

* Figures cover period July 1 to September 8, 1916; stated separately afterward.

Indigo, Natural

	Pounds.	Dollars.
1871	2,101,867	2,115,914
1881	1,699,754	1,541,664
1891	3,999,644	1,692,290
1901	3,139,063	1,402,394
1917	1,231,986	2,449,361
1918	2,141,382	3,261,978
1919	794,251	961,610
1920	154,843	206,119
1921	61,967	121,320
1922	36,007	76,176
1923	10,527	11,709

Indigo, Synthetic

	Pounds.	Dollars.
1917	886,700	559,156
1918	942,946	553,246
1919	358,867	197,176
1920	520,347	351,440
1921	99,809	107,084
1922	101,683	187,925
1923	27,750	35,200

Indigo, Dyes Obtained From

		Dollars.
1914	.....	34,342
1915	.....	76,258
1916	.....	155,254
1917	.....	147,744

Stated as "Indigoids, etc," after 1917.

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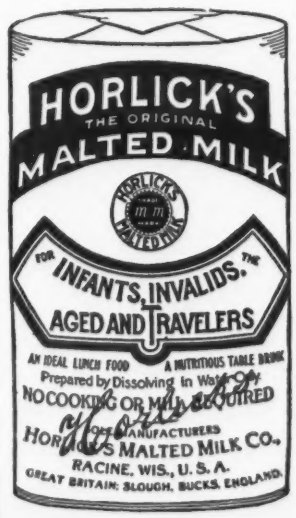
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MALTED MILK

Imports Into the United States

Indigo, Extracts or Pastes

	Pounds.	Dollars.
1871	.....	40,423
1881	1,540,185	141,163
1891	881,969	58,289
1901	181,168	12,292
1912	223,687	45,984
1913	242,998	43,417
1914	11,998	2,540

Not stated after October 3, 1913.

Indigoids Obtained from Indigo or Otherwise

	Pounds.	Dollars.
1918	13,037	40,984
1919	4,236	9,378
1920	70,461	177,736
1921	67,269	110,596
1922	187,156	228,822
1923	64,399	111,270

Ink, Printers'

		Dollars.
1901	.....	13,392
1913	.....	7,820
1914	.....	24,999
1915	.....	15,022
1916	.....	17,884
1917	.....	19,026
1918	.....	4,685
1919	.....	655
1920	.....	7,214
1921	.....	12,319
1922	.....	4,997
1923	.....	14,403

Ink, Writing and Copying

		Dollars.
1913	.....	28,518
1914	.....	18,941
1915	.....	22,765
1916	.....	21,931
1917	.....	26,400
1918	.....	11,962
1919	.....	15,615
1920	.....	14,846
1921	.....	10,584
1922	.....	7,424
1923	.....	6,087

Ink, All Other, Including Ink Powders

		Dollars.
1871	.....	85,823
1881	.....	151,358
1891	.....	116,354
1901	.....	61,653
1913	.....	4,918
1914	.....	6,931
1915	.....	6,196
1916	.....	3,481
1917	.....	5,095
1918	.....	8,529
1919	.....	7,129
1920	.....	8,460
1921	.....	14,875
1922	.....	7,226
1923	.....	11,934

Iodine, Crude

	Pounds.	Dollars.
1871	74,320	212,195
1881	162,863	336,998
1891	241,186	382,009
1901	262,052	658,492
1913	351,256	739,734
1914	230,391	533,447
1915	631,510	1,284,395
1916	1,044,525	2,447,764
1917	1,726,903	4,381,317
1918	253,231	536,799
1919	1,212,290	2,443,569
1920	520,443	927,269
1921	592,758	1,291,669
1922	384,141	988,953
1923	342,206	1,067,491

Iodine, Resublimed

	Pounds.	Dollars.
1871	956	3,499
1881	13	30
1891	35	106
1901	22	21
1913	40	96
1914	57	205
1915	3	7
1916	.....	.....
1917	2,610	9,088
1918	15,450	41,739
1919	6,525	22,657
1920	2,870	10,160
1921	2,300	8,051
1922	1,500	4,730
1923	24	45

Iodoform

	Pounds.	Dollars.
1901	21	33
1913	16	57
1914	86¾	301
1915	10	40
1916	.....	.....
1917	.....	.....
1918	1	4
1919	.....	.....
1920	.....	.....
1921	7	27
1922	.....	.....
1923	.....	.....

Ipecac

	Pounds.	Dollars.
1871	22,460	25,232
1881	39,385	41,372
1891	30,484	50,505
1901	52,143	112,405
1913	54,648	86,113
1914	78,654	110,316
1915	137,927	248,408
1916	203,734	484,828
1917	84,672	146,505
1918	60,972	122,281
1919	171,944	378,542
1920	94,429	211,631
1921	83,316	186,998
1922	40,854	44,377
1923	65,875	81,625

Iridium

	Ounces, troy.	Dollars.
1881	.....	1,730
1891	.....	333
1901	.....	6,072
1913	5,341	348,333
1914	2,185	154,842
1915	3,801	220,823
1916	2,496	146,055
1917	3,899	355,206
1918	2,815	307,954
1919	3,678	503,047
1920	4,969	846,462
1921	3,282	641,349
1922	789	74,188
1923	1,812	336,843

Iron in Pigs—Ferrosilicon

	Tons.	Dollars.
1919	6,061	521,142
1920	17,855	891,108
1921	7,361	397,901
1922	10,977	524,355
1923	18,511	1,232,251

Iron, Chromate of, or Chromic Ore

	Tons.	Dollars.
1891	4,098	56,982
1901	12,390	214,762
1913	49,772	503,664
1914	85,892	777,166
1915	159,421	772,220
1916	107,069	1,196,250
1917	113,385	1,648,728
1918	77,863	1,555,861
1919	71,592	2,439,830
1920	103,625	1,418,570
1921	152,784	1,689,202
1922	54,820	413 208
1923	134,757	1,136,125

Iron in Pigs—Ferromanganese

	Tons.	Dollars.
1919	24,006	4,120,794
1920	38,973	3,986,743
1921	43,198	6,057,802
1922	31,164	1,877,094
1923	118,435	8,770,834

Iron in Pigs—Spiegeleisen

	Tons.	Dollars.
1919	27	1,018
1920	3,812	175,969
1921	2,127	109.140
1922	2,204	75,412
1923	10,442	343,268

Isinglass and Prepared Fish Sounds

	Pounds.	Dollars.
1871	.....	6,449
1881	393,801	243,239
1891	18,222	17,976
1901	5,608	12,341
1913	225,165	72,540
1914	146,364	56,433
1915	11,906	9,008
1916	13,750	14,498
1917	35,723	35,476
1918	31,490	23,339
1919	16,764	11.806
1920	26,844	29,341
1921	20,972	15.515
1922	15,278	12,416
1923	79,688	76,261

Jalap

	Pounds.	Dollars.
1871	46,135	29,688
1881	76,986	12,256
1891	92,107	24,141
1901	165,850	15,593
1913	227,275	44,632
1914	208,901	23,942
1915	176,047	18,485
1916	201.383	13.642
1917	168,639	14,315
1918	126,511	34,238
1919	95,103	40.667
1920	193,813	104.902
1921	62,148	22.290
1922	60.474	7 207
1923	131,727	28,376

Joss Sticks, or Joss Light

		Dollars.
1891	.....	1,307
1901	.....	9,706
1913	.....	13,851
1914	.....	6,888
1915	.....	21.720
1916	.....	36,968
1917	.....	36.115
1918	.....	30,660
1919	.....	26,996
1920	.....	36.137
1921	.....	25.056
1922	.....	46,986
1923	.....	39,782

Kainite

	Tons.	Dollars.
1891	85,877	605,309
1901	187,470	1,235,124
1913	366,184	2,149,689
1914	526,112	2,579.619
1915	79,124	444,996
1916	64	1,795
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	272,048	5,599.980
1921	204,834	4,782,974
1922	83,571	585,338
1923	173,353	1,133,576

Kelp

	Pounds.	Dollars.
1901	.....	13
1913	.....	4
1914	.....	350
1915	.....	.....
1916	.....	67
1917	.....	50
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	36
1922	.....	.....
1923	2,500	275

Lac, Dye

	Pounds.	Dollars.
1871	128,938	21,069
1881	194,623	39,064
1891	.....	.....
1901	4,922	671
1913	.....	.....
1914	.....	.....
1915	.....	.....
1916	89,600	13,804
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	398,028	54,849
1921	680	135
1922	.....	.....

Not stated after 1922.

Lactarene, or Casein

	Pounds.	Dollars.
1913	8,803,639	651,062
1914	10,799,351	705,305
1915	7,919,742	498,897
1916	10,376,641	984,899
1917	12,319,111	1,843,492
1918	12,106,855	1,765,653
1919	8,125,135	959,995
1920	24,039.313	2,783,548
1921	14,179,764	1,570,069
1922	10,529,295	706,861
1923	25,641,741	4,556,246

Lakes, Dry or in Pulp, Not Specially Provided For

	Pounds.	Dollars.
1914	.....	59,603
1915	.....	158,430
1916	.....	29,839
1917	.....	11,230
1918	.....	8,301
1919	600	1,307
1920	8,901	7,870
1921	9,798	6,533
1922	169,895	9,234
1923	6,091	7,322

Lard

	Pounds.	Dollars.
1871	9,565	1,478
1881	1,655	225
1891	1,705	187
1901	3,084	290
1913	4,117	496
1914	1,251	169

Included in next class after October 3, 1913.

Lard, Lard Compounds and Lard Substitutes

	Pounds.	Dollars.
1914	124,385	13,665
1915	729,792	79,632
1916	2,405	289
1917	66,682	7,522
1918	1,131,998	266,806
1919	3,191,726	870,361
1920	746,073	192,918
1921	4,988	1,146
1922	3,263	497
1923	3,443	912

Lead, Acetate of—Brown, Gray or Yellow

	Pounds.	Dollars.
1871	1,827	196
1891	.....	.....
1901	11	4
1913	42	8
1914	17,477	957
1915	.....	.....
1916	124	17
1917	223	97
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	3,854	306
1922	5,123	346
1923	11,023	768

Lead, Acetate, White

	Pounds.	Dollars.
1881	34	5
1891	13,279	707
1901	1,500	99
1913	21,599	1,177
1914	110,936	10,768
1915	31,096	1,809
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	220	212
1920	14	7
1921	6,361	549
1922	83,712	6,378
1923	70,297	5,010

Lead, Nitrate

	Pounds.	Dollars.
1871	513,280	35,358
1881	179,261	10,651
1891	639	46
1901	24,269	1,231
1913	11,305	603
1914	11,312	712
1915	.....	.....
1916	2,205	280
1917	224	22
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	7,746	530
1923	89,073	4,614

Lead Compounds, Not Elsewhere Specified

	Pounds.	Dollars.
1914	102,899	9,348
1915	86,514	7,471
1916	39,823	3,644
1917	32,887	3,069
1918	4,510	242
1919	2,408	321
1920	5,591	958
1921	13.224	2,102
1922	3,481	683
1923	14,013	1,951

Lead Pigments, N. E. S.

	Pounds.	Dollars.
1921	35,227	2,869
1922	1,489	467
1923	14,050	1,009

Lead, Pigs and Bars, Old Refuse Run Into Bars, Etc.

	Pounds.	Dollars.
1871	91,496,716	3,721,096
1881	4,322,068	159,129
1891	19,772,642	615,716
1901	.....	.....
1913	6,905,760	147,838
1914	1,309.204	36,307
1915	951,999	31,385
1916	1,794,889	90,815
1917	6,369,189	323,951
1918	345,861	16,155
1919	2,315.652	103,837
1920	15.242.621	735,608
1921	112,785.058	5,145,452
1922	13,085.644	386 894
1923	64,012,593	2,443,146

Leeches

		Dollars.
1891	.....	3,647
1901	.....	2,464
1913	.....	5,587
1914	.....	7,376
1915	.....	1,834
1916	.....	2,810
1917	.....	16,899
1918	.....	9,035
1919	.....	5 818
1920	.....	14,130
1921	.....	11,100
1922	.....	7,692
1923	.....	7,704

Lemon, Lime and Sour Orange Juice

	Pounds.	Dollars.
1871	.....	7,058
1881	.....	63,920
1891	.....	140,673
1901	.....	122,469
1913	.....	116,370
1914	.....	110,860
1915	.....	139,605
1916	.....	152,575
1917	.....	180,088
1918	.....	114,404
1919	1,933,465	277,031
1920	3,254,633	515,004
1921	1,009,320	166,827
1922	1,083,583	169,216
1923	1,534,682	176,662

Licorice, Extract of, in Paste, Rolls or Other Forms

	Pounds.	Dollars.
1871	2,665,536	310,901
1881	872,900	111,072
1891	1,190,524	150,090
1901	878,634	96.404
1913	832.277	106,288
1914	946,016	122,210
1915	1,080,718	152,756
1916	1,702,927	230,129
1917	1,156,300	253,671
1918	734,976	229,812
1919	413.648	218,028
1920	1,116,621	773,970
1921	1,653,809	519.884
1922	1,444.253	333.434
1923	1,570,930	400,364

Licorice Root

	Pounds.	Dollars.
1871	3,199,958	80,366
1881	29,927,501	575,720
1891	55,093,585	897,186
1901	96,118,444	1,737,709
1913	105,632,429	1,806,756
1914	86,754,245	1,526,057
1915	82,289,410	1,537,442
1916	52,794,042	1,792,573
1917	59,398,644	2,189,441
1918	27,051,021	1,863,886
1919	42,644,061	3,426,007
1920	47,582,849	2,983,716
1921	59.963.895	3.755.726
1922	52,437.947	2,157,916
1923	47,531,247	1,735,876

Lime

	100 pounds.	Dollars.
1871	.....	11,315
1881	.....	24,968
1891	329,580	67,700
1901	477,755	65,413
1913	77,319	42,839
1914	65,036	42,926
1915	66,634	29,518
1916	92,321	42,537
1917	160,776	74,437
1918	147,080	77,733
1919	167,152	103,749
1920	278,046	219,986
1921	361,553	357,992
1922	224,189	241,580
1923	266,747	352,651

Lime, Chlorinated, or Bleaching Powder

	Pounds.	Dollars.
1871	32,111,839	635,910
1881	74,624,420	820,073
1891	111,156.006	1,431.470
1901	110,962,467	1,372,829
1913	76.092,327	619,492
1914	48.497.239	416,893
1915	18,402,130	197,975
1916	3,289,790	80,418
1917	65,564	3,888
1918	535	83
1919	539,596	11,363
1920	880,007	13,611
1921	4,584.344	144,029
1922	17,374,617	267,065
1923	1,759,457	61,943

Lime, Citrate

	Pounds.	Dollars.
1891	28,358	4,337
1901	2,416,088	299.583
1913	5,526,954	756,309
1914	3,119,924	496,517
1915	6,242,244	1,102,629
1916	8,127,364	1,763,652
1917	6,361,458	1,554.577
1918	4,013,606	814,073
1919	2,773,095	1,136,057
1920	10,929.814	2,908.023
1921	5,060,407	1.104.576
1922	8,983,134	1,194.964
1923	7,572,925	1,103,584

Litharge

	Pounds.	Dollars.
1871	70,889	3,870
1881	63,058	2,568
1891	87,970	4,334
1901	23,808	1,057
1913	34,022	1,649
1914	43,156	2,355
1915	14,779	774
1916	20,160	1,417
1917	220	42
1918	100	12
1919	.....	.....
1920	2	1
1921	21,100	2,653
1922	1,770	162
1923	21,405	1,250

Lithopone

	Pounds.	Dollars.
1914	7,245,151	218,133
1915	6,185,345	195,828
1916	5,122,083	414,573
1917	231.869	20,591
1918	448.000	29,199
1919	233,338	17.678
1920	2,284,955	170.522
1921	3,270.179	249.014
1922	20,482.320	822.045
1923	20,632,881	821,318

Litmus

	Pounds.	Dollars.
1881	.....	229
1891	.....	113
1901	.....	84
1913	.....	216
1914	.....	263
1915	.....	59
1916	.....	280
1917	.....	648
1918	.....	44
1919	5,016	4.177
1920	2,054	1.535
1921	5,303	3.419
1922	2,396	1,756

Included in "Cudbear, etc.," after 1922.

Logwood

	Tons.	Dollars.
1881	72,018	1,302,986
1891	84,381	1,842,964
1901	54,480	857,991
1913	36,952	475,484
1914	30,172	379,754
1915	54,704	722,410
1916	134.819	3,437,388
1917	121,762	4.127,031
1918	55,354	1,175,049
1919	20,871	412,952
1920	45,073	1,144,455
1921	66,977	1,697,436
1922	31,418	644,812
1923	27,653	426,878

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Imports Into the United States

Logwood Extract for Dyeing

	Pounds.	Dollars.
1871	.....	12,537
1881	6,091,388	454,984
1891	3,282,227	376,803
1901	2,864,874	191,852
1913	2,258,206	111,575
1914	1,228,178	77,119
1915	2,061,368	144,207
1916	2,652,787	316,872
1917	1,147,448	164,711
1918	215,954	24,698
1919	265,774	51,041
1920	868,297	70,910
1921	116,185	25,500
1922	1,317,694	78,601
1923	1,928,359	97,086

Mace, Unground

	Pounds.	Dollars.
1871	69,370	41,571
1881	86,914	30,111
1891	186,801	85,978
1901	321,146	78,785
1913	611,005	244,177
1914	287,976	112,178
1915	342,618	124,128
1916	426,096	130,796
1917	436,346	145,126
1918	371,746	118,168
1919	321,339	107,739
1920	552,040	184,357
1921	581,408	150,651
1922	734,025	131,543
1923	927,276	247,258

Mace, Bombay, or Wild, Unground

	Pounds.	Dollars.
1915	5,714	771
1916	22,400	6,720
1917	40,984	4,090
1918	1,791	624
1919	.....	.....
1920	3,236	397
1921	1,986	249
1922	8,964	1,494
1923	.....	.....

Magnesia, Calcined.

	Pounds.	Dollars.
1871	24,874	7,881
1881	20,815	6,182
1891	7,157	1,658
1901	22,383	4,064
1913	72,579	12,592
1914	109,396	15,118
1915	145,806	16,012
1916	46,008	7,560
1917	56,656	17,575
1918	12,165	4,483
1919	572	1,318
1920	38,391	15,063
1921	17,664	6,909
1922	60,998	10,474
1923	144,597	24,857

Magnesia, Carbonate of, Precipitated.

	Pounds.	Dollars.
1871	132,619	15,031
1881	350,140	35,232
1891	76,015	5,603
1901	13,897	894
1913	77,190	3,811
1914	58,683	3,972
1915	49,731	2,554
1916	19,888	1,414
1917	25,092	5,077
1918	5,681	1,906
1919	232	131
1920	19,112	2,311
1921	3,760	666
1922	26,888	2,998
1923	215,815	13,285

Magnesia, Chloride of.

	Pounds.	Dollars.
1919	18,676	1,907
1920	214,107	3,371
1921	2,022,339	25,535
1922	9,011,216	102,464
1923	19,270,756	196,085

Magnesia, Sulphate of, or Epsom Salts.

	Pounds.	Dollars.
1871	85,582	1,108
1881	17,410	293
1891	16,370	207
1901	266,290	1,682
1913	9,345,099	35,739
1914	13,550,599	48,742
1915	7,005,598	32,862
1916	1,456,254	8,503
1917	54,200	875
1918	48,540	915
1919	4,350	167
1920	662,896	8,927
1921	6,591,977	105,776
1922	16,180,525	119,951
1923	15,879,648	171,592

Magnesite, Crude.

	Pounds.	Dollars.
1901	65,996,858	281,901
1913	33,654,260	111,276
1914	21,590,605	46,611
1915	37,463,509	80,625
1916	101,591,459	281,951
1917	179,292,638	748,951
1918	18,562,767	104,947
1919	1,975	57,434
1920	13,881	232,708
1921	50,927	450,872
1922	60,372	907,827
1923	35,427	430,568

Quantity stated in tons after 1918.

Magnesite, Calcined.

	Pounds.	Dollars.
1913	345,322,155	1,731,443
1914	288,989,577	1,485,273
1915	125,893,407	751,766
1916	32,372,610	282,768
1917	9,448,817	182,037
1918	22,764,029	535,202
1919	12,058	532,020
1920	13,619	365,823
1921	9,425	336,539
1922	16,340	442,259
1923	28,556	631,598

Quantity stated in tons after 1918.

Magnesium, Metal

	Pounds.	Dollars.
1920	17,988	19,492
1921	43,297	34,123
1922	70,186	32,800
1923	135,622	37,591

Malt Extract, Fluid, in Bottles or Jugs.

	Gallons.	Dollars.
1881	.....	1,036
1891	46,966	48,802
1901	1,757	1,908
1913	1,405	2,376
1914	1,284	2,087
1915	318	589
1916	64	92
1917	516	485
1918	.....	.....
1919	3	5
1920	.....	.....
1921	3,766	4,116
1922	2,079	3,340

Not stated separately after 1922.

Malt Extract, Fluid, in Casks.

	Gallons.	Dollars.
1891	13,727	6,817
1901	8,244	4,382
1913	9,191	9,661
1914	10,333	10,050
1915	4,124	3,951
1916	2,488	2,313
1917	10,783	10,606
1918	.....	.....
1919	.....	.....
1920	20	51
1921	1,878	3,018
1922	70	113

Not stated separately after 1922.

Malt Extract, Fluid

	Gallons.	Dollars
1923	905	895

Malt Extract, Solid or Condensed.

	Pounds.	Dollars.
1891	.....	187
1901	.....	400
1913	.....	338
1914	.....	767
1915	.....	7,006
1916	.....	11,834
1917	.....	71
1918	.....	44
1919	.....	.....
1920	.....	.....
1921	1,563	364
1922	.....	.....
1923	70	53

Quantity not stated prior to 1921.

Manganese Ore, or Concentrates

	Tons.	Dollars.
1871	.....	12,321
1881	642	20,432
1891	48,559	628,672
1901	134,582	1,163,971
1913	407,169	2,195,565
1914	288,837	1,841,472
1915	206,913	1,494,965
1916	492,967	5,358,087
1917	656,026	10,542,572
1918	557,711	11,944,515
1919	373,202	16,358,741
1920	323,901	8,086,001
1921	682,770	10,199,612
1922	257,208	1,536,662
1923	228,431	2,638,688

Manna.

	Pounds.	Dollars.
1871	.....	13,283
1881	35,456	15,061
1891	24,792	7,471
1901	24,883	12,084
1913	30,869	16,303
1914	88,240	32,848
1915	36,833	12,276
1916	68,447	32,434
1917	75,336	48,613
1918	93,097	51,092
1919	44,063	27,794
1920	112,818	52,145
1921	29,824	14,474
1922	32,768	15,025
1923	97,065	30,024

Manure Salts, Including Double Manure Salts, Not Specially Provided For.

	Tons.	Dollars.
1913	172,597	1,798,778
1914	260,977	2,757,013
1915	66,411	757,151
1916	2,278	42,368
1917	324	7,794
1918	225	9,047
1919	.....	.....
1920	240,899	8,215,063
1921	123,273	4,165,817
1922	81,442	957,443
1923	234,026	2,150,254

Marshmallow or Althea Flowers or Leaves.

	Pounds.	Dollars.
1913	561	27
1914	.....	.....
1915	4,695	245
1916	8,161	1,126
1917	21,713	2,033
1918	10,779	1,239
1919	4,869	770
1920	48,525	10,566
1921	13,699	1,524
1922	.....	.....
1923	17,122	1,329

Marshmallow or Althea Root, Crude.

	Pounds.	Dollars.
1913	4,270	538
1914	6,049	514
1915	6,645	1,209
1916	7,242	1,926
1917	23,120	5,846
1918	24,246	6,824
1919	12,519	5,316
1920	63,099	17,309
1921	25,493	5,491
1922	3,710	493
1923	2,113	232

Matches, Friction or Lucifer.

		Dollars.
1871	.....	.....
1881	.....	17,676
1891	.....	88,041
1901	.....	176,909
1913	.....	721,081
1914	.....	889,838
1915	.....	653,699
1916	.....	909,430
1917	.....	1,880,806
1918	.....	3,343,800
1919	.....	1,406,151
1920	.....	945,297
1921	.....	1,135,284
1922	.....	1,904,709
1923	.....	1,997,765

Meat Extracts, Fluid.

	Pounds.	Dollars.
1913	29,091	11,096
1914	3,766	3,956
1915	3,738	4,428
1916	172	264
1917	1,960	3,632
1918	12	22
1919	1,613	1,677
1920	11,584	16,078
1921	2,497	2,117
1922	2,174	3,862

Not stated separately after 1922.

Meat Extracts, All Other.

	Pounds.	Dollars.
1913	106,313	138,489
1914	130,672	198,187
1915	97,656	139,936
1916	78,614	100,652
1917	93,108	155,766
1918	1,401	1,411
1919	9,482	12,111
1920	14,375	14,114
1921	87,283	57,737
1922	123,020	116,369

Not stated separately after 1922.

Meat Extracts

	Pounds.	Dollars.
1923	250,889	243,644

Menthol.

	Pounds.	Dollars.
1913	49,896	289,058
1914	127,924	408,954
1915	111,020	236,759
1916	145,208	300,589
1917	172,767	398,191
1918	172,450	446,386
1919	243,743	1,055,920
1920	181,160	1,208,908
1921	239,297	1,575,824
1922	162,263	770,694
1923	233,168	1,399,787

Mercurial Medicinal Preparations, N. E. S.

	Pounds.	Dollars.
1921	6,769	8,149
1922	1,967	1,424
1923	1,935	3,520

Metacresol, Orthocresol and Paracresol

	Pounds.	Dollars.
1918	20,708	1,404
1919	11,200	1,221
1920	2,240	2,055
1921	204	175
1922	3,290	518
1923	13,714	7,361

Mica, Ground.

	Pounds.	Dollars.
1913	577,061	6,592
1914	401,603	4,002
1915	378,768	4,143
1916	436,037	4,302
1917	152,963	1,584
1918	111,037	1,384
1919	612	272
1920	6,995	10,223
1921	760	1,755
1922	285,295	4,289
1923	1,290,136	23,362

Mineral Salts Obtained by Evaporation from Mineral Waters.

	Pounds.	Dollars.
1901	150,631	31,811
1913	108,337	35,420
1914	82,569	40,840
1915	10,757	9,642
1916	425	213
1917	626	313
1918	4,699,735	14,230
1919	1,414,450	10,237
1920	753,859	10,946
1921	97,708	13,814
1922	608,540	13,379
1923	37,863	18,685

Monazite Sand and Thorite.

	Pounds.	Dollars.
1913	1,145,010	94,425
1914	170,792	12,984
1915	1,493,028	133,819
1916	2,468,146	191,576
1917	4,020,023	293,331
1918	4,961,385	332,383
1919	952,304	55,898
1920	1,148,447	99,672
1921	1,036,420	71,745
1922	101,550	7,978
1923	3,366,044	202,249

Morphia, or Morphine, Sulphate of.

	Ounces.	Dollars.
1871	237	1,066
1881	22,358	55,531
1891	29,564	42,269
1901	50,819	147,517
1913	24,797	141,221
1914	5,805	14,220
1915	1,383	3,300
1916	2,685	8,906
1917	5,584	22,675
1918	25,115	202,263
1919	25,370	158,307
1920	7,460	32,111
1921	1,550	4,594
1922	3,460	6,406
1923	200	361

Moss and Seaweeds, Unmanufactured.

	Pounds.	Dollars.
1913	.....	159,189
1914	.....	246,196
1915	.....	183,629
1916	.....	224,928
1917	.....	182,868
1918	.....	234,465
1919	13,291,917	257,134
1920	6,872,608	460,070
1921	7,988,370	505,100
1922	7,744,683	477,453
1923	12,558,582	571,390

Musk, in Grain.

	Ounces.	Dollars.
1913	.....	7,699
1914	.....	3,991
1915	.....	665
1916	.....	534
1917	.....	63,304
1918	.....	29,246
1919	6,269	7,158
1920	414	3,228
1921	3,059	30,985
1922	2,198	25,989

Not stated separately after 1922.

Musk, in Pod

	Ounces.	Dollars.
1891	6,167	59,291
1901	9,353	71,300
1913	12,994	124,855
1914	3,331	30,373
1915	10,115	65,882
1916	7,890	62,094
1917	12,415	80,026
1918	5,516	33,970
1919	10,240	176,008
1920	16,058	261,320
1921	5,823	96,788
1922	5,352	70,314

Not stated separately after 1922.

Musk in Grain or Pods

	Pounds.	Dollars.
1923	754	152,314

Myrobolans Fruit

	Pounds.	Dollars.
1913	19,735,724	195,264
1914	24,256,373	438,672
1915	18,417,434	198,347
1916	25,612,765	375,401
1917	16,087,463	421,824
1918	4,408,522	110,444
1919	9,597,836	188,517
1920	62,196,177	993,932
1921	28,077,222	372,205
1922	28,567,166	194,465
1923	47,218,672	462,755

Naphthalene, Solidfying at Less Than 79 Degree C.

	Pounds.	Dollars.
1918	3,579,187	146,655
1919	3,591,108	109,381
1920	6,113,768	165,383
1921	13,925,780	515,078
1922	2,344,951	52,496
1923	12,153,047	287,836

Naphthalene, Solidifying at 79 Degree C. or Above

	Pounds.	Dollars.
1918	92,888	4,998
1919	60	10
1920	161,871	8,076
1921	3,974,776	439,233
1922	53,496	5,453
1923	32,374	2,928

Naphthol

	Pounds.	Dollars.
1921	54,341	64,248
1922	279,623	49,353
1923	10,050	22,120

Naphthylamine

	Pounds.	Dollars.
1918	11,761	5,895
1919	.....	.....
1920	.....	.....
1921	69,695	7,208
1922	.....	.....
1923	.....	.....

Nickel Oxides

	Pounds.	Dollars.
1913	1,124	398
1914	2,720	1,245
1915	1,071	505
1916	497	130
1917	21,488	6,478
1918	5,534	1,406
1919	7,774	2,430
1920	1,076	324
1921	1,155	165
1922	60,698	17,414
1923	2,966,259	322,536

Nitrobenzol

	Pounds.	Dollars.
1920	43,623	7,222
1921	23,781	2,790
1922	.....	.....
1923	.....	.....

Nitrophenylenediamine

	Pounds.	Dollars.
1922	1,132	6,590
1923	.....	.....

Nitrotoluol

	Pounds.	Dollars.
1921	684	259
1922	.....	.....
1923	.....	.....

Nuts and Nutgalls for Dyeing and Tanning

	Pounds.	Dollars.
1901	.....	248,746
1913	.....	126,435
1914	.....	177,788
1915	.....	137,972
1916	.....	420,030
1917	.....	214,653
1918	.....	872,173
1919	1,760,746	362,975
1920	2,776,978	647,268
1921	2,248,951	532,076
1922	565,508	75,496
1923	3,497,713	335,535

Nutgall, Extract

	Pounds	Dollars
1913	145,919	18,228
1914	205,130	25,017
1915	157,084	23,262
1916	61,055	11,444
1917	45,760	9,867
1918	36,475	12,761
1919	34,033	12,508
1920	48,654	26,565
1921	4,219	1,114
1922	32,458	5,192
1923	150,505	28,455

Nutmegs, Unground

	Pounds.	Dollars.
1871	919,990	390,175
1881	999,504	573,917
1891	1,324,893	684,277
1901	1,922,689	376,447
1913	3,458,339	368,984
1914	1,755,653	184,779
1915	2,879,986	283,861
1916	3,590,959	420,503
1917	4,201,872	661,012
1918	3,437,056	528,950
1919	3,893,019	674,016
1920	3,651,319	691,849
1921	3,474,243	576,103
1922	3,916,059	447,349
1923	5,081,636	572,983

Nux Vomica

	Pounds.	Dollars.
1871	496,639	13,972
1881	1,172,909	17,449
1891	1,394,813	32,930
1901	1,581,757	30,560
1913	2,306,735	39,380
1914	1,891,072	32,983
1915	2,245,338	51,507
1916	4,355,964	134,366
1917	2,445,984	86,018
1918	2,739,804	113,711
1919	4,543,710	345,559
1920	4,470,323	275,904
1921	3,190,255	272,533
1922	1,063,608	76,998
1923	2,329 747	126,349

Oak Extract for Tanning, Containing No Alcohol

	Pounds.	Dollars.
1921	1,484,032	84,553
1922	496,079	27,557
1923	.....	.....

Ocher and Ochery Earths

	Pounds.	Dollars.
1871	2,954,716	40,270
1881	3,589,600	65,393
1891	6,823,251	79,465
1901	7,410,929	55,501
1913	17,583,272	162,387
1914	21,641,976	154,547
1915	17,430,128	124,359
1916	18,049,375	153,880
1917	17,873,109	213,272
1918	7,087,557	131,085
1919	13,577,785	341,701
1920	15,264,966	229,526
1921	25,172,178	324,496
1922	11,856,246	198,701
1923	7,284,183	113,928

SMITH, KLINE & FRENCH COMPANY

PHILADELPHIA, PA.

Wholesale Druggists *Manufacturing Pharmacists*

The Baker Castor Oil Co.

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CRYSTAL
Odorless and Tasteless
A. A.
No. 3

CASTOR OIL

Largest Producers of Castor Oil in United States

120 BROADWAY NEW YORK

ESTABLISHED 1857

Imports Into the United States

Oilcake, Coconut

	Pounds.	Dollars.
1917	29,867	400
1918	34,824	355
1919	3,474,947	51,437
1920	80,903,960	1,535,468
1921	117,208,327	2,038,122
1922	37,162,444	955,691
1923	62,626,038	1,041,922

Oilcake, Cottonseed

	Pounds.	Dollars.
1901	.....	.....
1913	400,686	3,322
1914	5,744,090	53,214
1915	1,743,113	15,706
1916	10,289,336	108,413
1917	34,281,702	372,812
1918	29,877,055	456,848
1919	51,377,272	1,049,182
1920	35,093,455	824,834
1921	22,061,743	423,801
1922	3,890,509	51,046
1923	667,046	10,412

Oilcake, Cottonseed and Linseed (Bibby's)

	Pounds.	Dollars.
1913	2,571,694	37,455
1914	2,406,035	24,332
1915	2,996,201	38,238
1916	10,819,746	129,843
1917	6,570,668	82,808
1918	2,751,880	84,985
1919	2,502,984	54,750
1920	1,998,424	56,740
1921	4,773,303	107,794
1922	8,209,010	151,800
1923	3,627,993	72,634

Oilcake, Peanut

	Pounds.	Dollars.
1920	1,120,277	30,006
1921	101,072	2,188
1922	.....	.....
1923	459,056	12,018

Oilcake, Soya Bean

	Pounds.	Dollars.
1913	7,004,803	93,002
1914	3,163,260	38,255
1915	5,975,592	64,307
1916	10,468,001	103,081
1917	11,760,935	136,064
1918	586,820	9,964
1919	2,763,090	129,277
1920	16,273,785	408,885
1921	31,226,207	655,805
1922	17,701,339	339,021

Not stated separately after 1922.

Oilcake, All Other Bean

	Pounds.	Dollars.
1913	579,794	5,914
1914	142,878	1,685
1915	724,072	13,035
1916	4,802,119	83,173
1917	895,079	11,400
1918	1,389,434	17,628
1919	614,192	14,508
1920	2,056,639	42,082
1921	10,374,980	209,166
1922	4,591,694	105,311

Not stated separately after 1922.

Oilcake and Oilcake Meal, Bean (Soya and Other)

	Pounds.	Dollars.
1923	27,722,028	525,018

Oilcake and Oilcake Meal, All Other

	Pounds.	Dollars.
1901	1,749	172
1919	352,049	23,437
1920	4,832,087	111,056
1921	10,946,891	200,299
1922	3,975,911	52,876
1923	19,387,703	364,289

Oil, Alizarin Assistant, Etc., and Soaps Containing Castor Oil

	Gallons.	Dollars.
1891	1,469	818
1901	24,716	11,335
1913	137,187	62,923
1914	186,234	72,430
1915	48,376	18,820
1916	7,382	4,134
1917	5,193	3,010
1918	24	24
1919	47,008	32,121
1920	27	29
1921	1,147	711
1922	1,187	708
1923	15,802	1,855

Oil, Almond, Bitter

	Pounds.	Dollars.
1871	1,440	14,122
1881	3,642	12,342
1891	4,795	9,958
1901	4,096	9,998
1913	10,442	25,629
1914	7,525	21,954
1915	2,711	9,184
1916	3,602	18,400
1917	4,128	27,751
1918	1,887	18,154
1919	1,333	14,427
1920	4,428	19,245
1921	4,825	14,979
1922	4,461	18,270
1923	9,253	28,187

Oil, Almond, Sweet

	Pounds.	Dollars.
1871	18,959	5,681
1881	34,325	12,641
1891	51,384	12,249
1901	81,074	17,512
1913	152,300	63,583
1914	52,550	22,777
1915	43,321	23,495
1916	68,838	36,400
1917	38,939	23,431
1918	56,283	25,052
1919	29,586	26,456
1920	55,096	33,420
1921	43,515	21,963
1922	71,418	29,773
1923	54,430	25,529

Oil, Amber

	Pounds.	Dollars.
1871	2,279	583
1881	6,211	1,431
1891	3,444	894
1901	38,082	3,304
1913	18,707	1,027
1914	15,648	1,058
1915	2,720	239
1916	674	250
1917	7,580	2,932
1918	1,080	458
1919	3,900	4,530
1920	2,227	1,938
1921	1,084	354
1922	1,840	653
1923	544	361

Oil, Ambergris

	Pounds.	Dollars.
1891	78	1,509
1901	26	2,258
1919	2	212
1920	.....	.....
1921	.....	.....
1922	3	409
1923	.....	.....

Oil, Anise, or Anise Seed

	Pounds.	Dollars.
1871	10,475	16,355
1881	27,232	49,660
1891	37,335	55,556
1901	57,564	67,926
1913	127,501	173,078
1914	42,672	55,692
1915	117,188	119,972
1916	206,609	156,411
1917	266,686	150,849
1918	160,774	122,459
1919	77,757	72,836
1920	218,382	227,172
1921	225,829	141,497
1922	42,230	21,638
1923	273,591	132,580

Oil, Bergamot

	Pounds.	Dollars.
1871	30,592	93,260
1881	41,796	95,390
1891	44,110	131,801
1901	75,640	143,740
1913	64,259	310,835
1914	38,647	148,753
1915	58,621	157,519
1916	69,440	178,300
1917	50,634	179,182
1918	57,689	241,465
1919	41,262	185,318
1920	92,708	369,727
1921	33,565	143,667
1922	62,566	249,302
1923	87,626	221,997

Oil, Birch Tar

	Pounds.	Dollars.
1914	40,123	1,898
1915	12,098	571
1916	47,757	3,183
1917	24,073	3,717
1918	110,055	22,443
1919	.....	.....
1920	220	108
1921	2,467	510
1922	3,705	1,142
1923	10,820	539

Oil, Cajeput

	Pounds.	Dollars.
1871	1,864	1,163
1881	7,019	4,421
1891	22,260	9,827
1901	12,350	4,472
1913	9,143	3,224
1914	14,110	4,757
1915	19,243	6,909
1916	96,626	18,992
1917	79,585	29,585
1918	10,563	3,538
1919	18,853	11,239
1920	27,775	18,629
1921	7,375	2,601
1922	2,904	1,515
1923	45,075	16,008

Oil, Camomile

	Pounds.	Dollars.
1881	25	316
1891	19	249
1901	25	456
1913	4½	88
1914	12	247
1915	3	67
1916	.....	.....
1917	.....	.....
1918	5	60
1919	.....	.....
1920	15	233
1921	11	128
1922	10	438
1923	5	194

Oil, Camphor

	Pounds.	Dollars.
1913	.....	.....
1914	18,874	3,160
1915	68	12
1916	8,333	5,708
1917	224	899
1918	236,000	21,245
1919	131	56
1920	3,635	1,270
1921	39,140	6,688
1922	7,568	2,721
1923	1,890,469	155,134

Oil, Caraway

	Pounds.	Dollars.
1871	6,305	8,772
1881	7,522	10,799
1891	.....	.....
1901	17,890	9,692
1913	10,107	10,453
1914	3,669	5,063
1915	18,107	20,730
1916	15,567	23,536
1917	3,723	4,208
1918	4,982	22,432
1919	.....	.....
1920	8,857	23,891
1921	6,071	11,888
1922	2,998	4,295
1923	7,125	26,575

Oil, Cassia and Cinnamon

	Pounds.	Dollars.
1871	25,794	28,754
1881	104,900	82,885
1891	27,980	22,732
1901	84,262	61,141
1913	123,645	97,488
1914	79,155	49,528
1915	54,902	34,411
1916	121,094	85,974
1917	153,244	130,112
1918	109,178	114,796
1919	123,150	201,295
1920	174,855	286,122
1921	102,010	133,551
1922	114,697	89,780
1923	224,782	277,833

Oil, Castor

	Gallons.	Dollars.
1871	29,814	20,241
1881	1,464	959
1891	2,073	1,287
1901	462	202
1913	5,241	6,896
1914	189,583	88,053
1915	62,005	29,206
1916	258,077	223,180
1917	323,703	288,088
1918	1,175,084	1,366,573
1919	482,216	845,682
1920	271,495	208,001
1921	99,017	124,315
1922	45,784	35,260
1923	145,488	135,792

Oil, Cedrat or Citron

	Pounds.	Dollars.
1891	311	2,836
1901	92	519
1913	115	555
1914	159	770
1915	788	3,721
1916	438	1,966
1917	.....	.....
1918	20	158
1919	336	531
1920	5	12
1921	.....	.....
1922	.....	.....
1923	.....	.....

Oil, Chinese Nut

	Gallons.	Dollars.
1871	131,832	79,881
1881	18,428	8,682
1891	67,312	30,641
1901	365,747	169,892
1913	6,004,045	2,738,000
1914	4,878,764	1,960,426
1915	4,723,584	1,649,270
1916	4,968,262	1,977,823
1917	6,846,631	4,046,132
1918	4,818,740	4,038,072
1919	6,218,557	7,248,054
1920	10,613,638	12,736,431
1921	4,439,975	4,817,082
1922	7,409,572	5,141,969
1923	11,916,318	10,188,994

Oil, Citronella and Lemon Grass

	Pounds.	Dollars.
1871	18,202	13,535
1881	103,152	84,290
1891	355,735	73,764
1901	288,247	59,593
1913	885,486	287,579
1914	702,516	263,149
1915	865,376	307,676
1916	1,054,211	387,631
1917	1,082,035	445,732
1918	900,853	369,234
1919	540,837	246,576
1920	1,062,821	673,029
1921	586,697	402,686
1922	1,219,669	462,132
1923	848,283	510,152

Oil, Civet

	Ounces.	Dollars.
1881	.....	38
1891	.....	.....
1901	792	1,326
1913	1,155	1,688
1914	250	392
1915	5,181	7,365
1916	.....	.....
1917	.....	.....
1918	3,277	5,136
1919	361	890
1920	3,000	7,290
1921	1,504	3,711
1922	1,771	1,751
1923	16,853	29,712

Oil, Coconut, Not Refined or Deodorized

	Pounds.	Dollars.
1871	195,462	87,288
1881	577,624	297,492
1891	10,665,054	560,833
1901	27,055,646	1,386,247
1913	50,493,858	4,182,654
1914	74,588,195	6,726,107
1915	63,249,424	5,430,581
1916	66,574,349	6,052,225
1917	79,359,009	9,141,536
1918	259,004,748	30,919,783
1919	347,200,288	43,769,146
1920	269,226,961	38,588,135
1921	166,417,897	20,287,334
1922	213,344,572	16,274,425
1923	145,807,433	10,099,173

Oil, Cod

	Gallons.	Dollars.
1913	466,494	135,969
1914	1,091,246	382,992
1915	1,372,413	433,142
1916	1,578,227	678,327
1917	1,163,566	728,804
1918	1,747,791	1,526,332
1919	932,948	1,091,722
1920	1,535,876	1,500,353
1921	877,521	561,195
1922	1,775,219	600,672
1923	1,959,223	986,221

Oil, Codliver

	Gallons.	Dollars.
1871	.....	20,476
1881	144,771	45,300
1891	249,894	98,865
1901	235,949	137,765
1913	262,516	137,872
1914	371,567	262,927
1915	264,630	157,090
1916	170,876	334,006
1917	265,557	659,192
1918	264,108	585,172
1919	161,291	449,014
1920	407,481	962,427
1921	337,139	506,849
1922	262,763	169,078
1923	414,656	272,885

Oil, Cottonseed

	Pounds.	Dollars.
1881	20	7
1891	.....	.....
1901	8,185	6,259
1913	3,383,906	185,396
1914	17,510,918	1,046,703
1915	15,162,360	728,961
1916	17,516,391	924,654
1917	12,961,339	985,616
1918	14,378,013	1,639,882
1919	20,964,012	2,685,027
1920	24 164,821	3,255,228
1921	1,315,265	131,334
1922	32	23
1923	45,297	4,575

Subject to duty after 1921.

Oil, Creosote, or Dead

	Gallons.	Dollars.
1901	2,072,428	155,331
1913	63,997,602	3,711,328
1914	59,271,677	3,822,919
1915	37,352,340	2,541,845
1916	40,496,987	3,206,780
1917	29,066,915	2,183,859
1918	3,857 869	329,846
1919	9,094,960	1,096,319
1920	8,338,761	1,171,717
1921	27,779,736	5,887,340
1922	39,143,044	3,965,786
1923	52,565,292	6,850,489

Oil, Croton

	Pounds.	Dollars.
1871	4,571	4,744
1881	2,542	2,112
1891	59	35
1901	462	219
1913	4,873	4,414
1914	6,186	5,649
1915	4,010	3,481
1916	.....	.....
1917	500	503
1918	1,200	1,274
1919	.....	.....
1920	2,478	3,142
1921	2,502	2,491
1922	1,800	1,813
1923	3,600	2,701

Oil, Essential and Distilled, Not Elsewhere Specified

		Dollars.
1901	.....	235,699
1913	.....	821,395
1914	.....	804,505
1915	.....	743,076
1916	.....	767,719
1917	.....	970,736
1918	.....	1,142,496
1919	.....	309,971
1920	.....	2,740,152
1921	.....	2,198,699
1922	.....	1,622,947
1923	.....	1,987,608

Oil, Eucalyptus

	Pounds.	Dollars.
1913	31,047	7,205
1914	68,053	21,079
1915	99,218	27,095
1916	110,736	29,993
1917	230,035	85,111
1918	269,275	97,874
1919	116,781	43,639
1920	291,492	137,190
1921	156,394	70,681
1922	175,901	66,571
1923	185,630	89,404

Oil, Fennel

	Pounds.	Dollars.
1871	373	392
1881	1,815	2,331
1891	774	463
1901	1,839	1,353
1913	5,702	4,160
1914	4,078	2,416
1915	409	441
1916	610	789
1917	.....	.....
1918	2,094	2,512
1919	661	942
1920	1,437	2,211
1921	20	30
1922	972	1,026
1923	616	861

Oil, Fish (Not Specially Provided for), Including Sod Oil

	Gallons.	Dollars.
1901	494,036	122,360
1913	519,121	153,966
1914	517,562	154,775
1915	439,741	108,789
1916	720,033	225,586
1917	2,280,013	863,059
1918	1,532,512	772,721
1919	1,263,374	1,019,195
1920	547,545	408,545
1921	324,646	166,792
1922	285,605	67,648
1923	733,112	225,607

Oil, Fixed or Expressed, Not Elsewhere Specified

	Pounds.	Dollars.
1901	.....	21,163
1913	.....	61,027
1914	.....	49,053
1915	.....	66,437
1916	.....	116,295
1917	.....	79,589
1918	.....	138,660
1919	1,088,636	174,463
1920	644,211	134,481
1921	554,659	83,459
1922	371,440	52,928
1923	9,358,574	686,766

Oil, Fusel or Amylic and Butyl Alcohol

	Pounds.	Dollars.
1871	3,500	2,063
1881	961	290
1891	345,001	16,780
1901	2,572,343	139,190
1913	5,116,660	1,188,872
1914	5,679,801	888,869
1915	3,298,228	699,512
1916	2,162,617	695,196
1917	1,614,597	629,414
1918	1,706,528	546,580
1919	1,464,500	356,414
1920	6,192,079	1,199,995
1921	1,083,336	274,423
1922	552,036	101,636
1923	2,479,194	610,536

Oil, Hempseed

	Gallons	Dollars.
1881	10,615	6,751
1891	140,163	66,744
1901	528,763	254,216
1913	.....	.....
1914	375	123
1915	.....	.....
1916	10	5
1917	.....	.....
1918	25,000	21,654
1919	162,131	152,365
1920	161,346	187,596
1921	20,868	23,532
1922	16,000	7,567
1923	.....	.....

Oil, Jasmine

	Pounds.	Dollars.
1881	.....	1,622
1891	441	283
1901	1,097	3,706
1913	3,416	29,554
1914	611	14,360
1915	261	5,160
1916	978	27,592
1917	343	8,366
1918	5,340	89,310
1919	12,227	204,005
1920	8,888	145,641
1921	2,115	110,957
1922	622	16,413
1923	207	10,668

Oil, Juniper

	Pounds.	Dollars.
1871	7,672	4,758
1881	7,073	4,147
1891	5,798	2,778
1901	13,155	5,226
1913	17,356	13,037
1914	14,545	8,691
1915	10,888	7,637
1916	975	1,988
1917	4,661	21,514
1918	21,340	67,147
1919	1,146	6,758
1920	8,885	37,019
1921	12,546	39,000
1922	15,612	20,293
1923	20,204	20,188

Oil, Lavender, and Spike Lavender

	Pounds.	Dollars.
1881	38,167	58,100
1891	92,224	102,819
1901	102,402	101,329
1913	227,013	482,779
1914	64,541	100,431
1915	72,989	133,375
1916	198,205	271,815
1917	144,663	237,081
1918	122,988	273,466
1919	111,411	240,523
1920	178,878	364,985
1921	84,626	183,488
1922	163,500	260,580
1923	178,581	271,302

Imports Into the United States

Oil, Lemon

	Pounds.	Dollars.
1891	151,460	225,755
1901	268,341	231,941
1913	410,003	794,215
1914	329,440	752,714
1915	561,387	630,338
1916	435,030	360,862
1917	557,288	459,179
1918	577,600	452,681
1919	345,799	327,370
1920	769,488	917,214
1921	543,489	559,970
1922	684,118	574,084
1923	592,089	402,427

Oil, Lemon and Orange

	Pounds.	Dollars.
1871	67,619	144,405
1881	88,480	181,495

Stated separately after 1881.

Oil, Limes

	Pounds.	Dollars.
1891	3,681	4,063
1901	5,904	5,980
1913	13,075	15,025
1914	16,559	23,828
1915	9,154	9,279
1916	19,765	29,694
1917	26,551	49,001
1918	29,137	73,685
1919	16,272	24,273
1920	61,824	87,873
1921	51,266	101,928
1922	27,200	24,343
1923	59,072	38,937

Oil, Linseed or Flaxseed, Raw, Boiled or Oxidized

	Gallons.	Dollars.
1871	39,424	24,806
1881	9,682	4,711
1891	11,629	5,828
1901	14,036	7,598
1913	172,522	110,840
1914	187,933	91,544
1915	537,810	249,611
1916	56,899	36,399
1917	110,809	76,530
1918	51,271	34,370
1919	957,573	1,199,911
1920	4,566,008	6,583,515
1921	1,966,250	1,905,330
1922	22,463,851	11,957,084
1923	10,731,809	5,045,874

Oil, Mace

	Pounds.	Dollars.
1871	187	160
1881	355	321
1891	605	613
1901	685	440
1913	5,737	2,611
1914	2,652	1,380
1915	4,776	2,605
1916	3,400	2,224
1917	3,000	2,414
1918	.....	.....
1919	.....	.....
1920	200	468
1921	.....	.....
1922	215	251
1923	.....	.....

Oil, Mineral, Crude, Petroleum

	Gallons.	Dollars.
1871	356	102
1881	694	160
1891	.....	214
1901	118	17
1913	450,542,222	7,608,796
1914	843,080,788	11,779,938
1915	653,757,824	8,918,138
1916	859,736,962	12,226,179
1917	1,036,417,009	14,181,349
1918	1,348,419,493	18,239,207
1919	1,929,339,105	24,166,677
1920	2,824,332,765	33,791,375
1921	5,609,224,120	71,030,595
1922	4,710,620,839	72,960,648
1923	3,794,928,580	54,336,992

Oil, Mineral, Refined, Benzine

	Gallons.	Dollars.
1913	14,162,423	1,266,896
1914	16,152,167	1,399,630
1915	6,783,627	727,855
1916	5,100	2,150

Not stated separately after 1916.

Oil, Mineral, Refined, Gasoline and Naphtha

	Gallons.	Dollars.
1913	570	118
1914	14,175	1,992
1915	1,136,797	34,701
1916	2,638	458

Not stated separately after 1916.

Oil, Mineral, Refined Benzine, Gasoline and Naphtha

	Gallons.	Dollars.
1917	10,744,592	1,396,101
1918	11,069,898	1,473,027
1919	11,760,856	1,867,863
1920	25,637,592	3,147,635
1921	31,778,815	3,711,948
1922	69,319,919	5,607,943
1923	87,801,664	7,176,506

Oil, Mineral, Refined, All Other

	Gallons.	Dollars.
1871	152	176
1881	21	7
1891	826,801	34,098
1901	24,532	5,897
1913	1,464,412	307,479
1914	1,796,093	430,664
1915	496,968	98,698
1916	1,727,683	134,815
1917	32,259,588	2,221,816
1918	43,927,718	2,496,764
1919	37,299,989	2,585,007
1920	59,040,338	3,945,468
1921	97,728,455	7,138,962
1922	112,073,487	7,179,162
1923	589,175,634	13,928,891

Oil, Neroli, or Orange Flower

	Pounds.	Dollars.
1891	2,757	51,984
1901	4,319	41,922
1913	38,365	171,932
1914	15,928	73,265
1915	13,251	31,478
1916	34,447	66,768
1917	23,639	66,394
1918	32,687	72,370
1919	10,595	52,853
1920	49,835	214,919
1921	22,780	95,207
1922	29,945	61,840
1923	6,551	81,502

Oil, Olive (for Manufacturing Purposes Only)

	Gallons.	Dollars.
1871	139,051	111,450
1881	172,030	112,916
1891	503,947	242,889
1901	1,303,474	530,607
1913	725,100	483,329
1914	799,260	503,093
1915	717,361	498,689
1916	919,633	711,468
1917	787,348	736,520
1918	166,115	148,672
1919	119,842	185,767
1920	255,835	434,561
1921	261,689	267,579
1922	1,037,021	804,929
1923	5,417,706	3,336,693

Oil, Olive, Edible

	Gallons.	Dollars.
1871	142,476	257,868
1881	216,788	380,428
1891	600,986	731,006
1901	991,799	1,180,443
1913	4,772,775	6,227,526
1914	6,391,827	8,201,831
1915	6,622,246	8,119,512
1916	6,924,606	9,324,361
1917	7,707,094	10,769,754
1918	2,562,538	2,935,457
1919	4,071,706	7,573,551
1920	6,640,601	14,887,944
1921	4,683,204	12,314,272
1922	7,432,164	11,621,248
1923	76,701,825	12,291,905

Quantity stated in pounds after 1922.

Oil, Orange

	Pounds.	Dollars.
1891	27,952	44,500
1901	72,218	109,832
1913	77,797	155,299
1914	104,491	222,118
1915	97,014	140,246
1916	97,359	134,025
1917	170,722	322,378
1918	196,846	330,507
1919	126,532	246,202
1920	282,349	953,514
1921	155,765	543,098
1922	210,034	558,374
1923	226,116	487,839

Oil, Origanum

	Pounds.	Dollars.
1871	33,612	17,526
1881	31,398	14,979
1891	.....	.....
1901	10,305	2,205
1913	8,822	8,502
1914	507	330
1915	14,349	15,111
1916	24,222	24,291
1917	54,671	45,859
1918	3,851	3,424
1919	2,637	5,506
1920	11,522	23,206
1921	8,950	16,438
1922	.....	.....
1923	5,900	9,774

Oil, Palm

	Pounds.	Dollars.
1881	9,325,090	309,355
1891	3,507,223	135,879
1901	8,081,252	419,466
1913	48,442,662	3,368,815
1914	61,753,482	4,118,077
1915	31,482,292	2,024,827
1916	40,621,318	2,918,523
1917	36,074,059	3,316,417
1918	27,408,494	2,527,872
1919	19,280,762	1,651,230
1920	50,165,387	6,529,094
1921	31,076,224	2,765,953
1922	39,159,342	2,420,742
1923	78,815,952	8,586,201

Oil, Palm Kernel

	Pounds.	Dollars.
1913	23,570,152	1,850,270
1914	30,588,958	2,826,972
1915	4,908,702	446,979
1916	6,273,340	479,738
1917	1,857,038	197,237
1918	18,018	2,583
1919	1,945,345	144,826
1920	53,508	9,900
1921	2,769,144	316,754
1922	2,489,490	209,551
1923	2,858,108	237,394

Oil, Lubricating, Including Paraffin Oil

	Gallons.	Dollars.
1913	116,192	35,193
1914	167,384	55,923
1915	60,412	11,609
1916	774,250	149,625
1917	409,746	40,710
1918	24,628	7,502
1919	551,142	75,451
1920	819,111	161,792
1921	4,344	3,792
1922	429,361	53,744
1923	2,517,850	456,870

Oil, Peanut

	Gallons.	Dollars.
1913	1,221,676	820,359
1914	1,332,108	915,439
1915	830,638	565,707
1916	1,466,043	824,327
1917	3,018,468	2,028,096
1918	8,279,927	7,296,214
1919	11,393,615	11,493,969
1920	22,025,653	27,752,099
1921	2,444,794	2,347,980
1922	375,819	314,969
1923	4,401,071	453,035

Quantity stated in pounds after 1922.

Oil, Peppermint

	Pounds.	Dollars.
1891	3,049	3,918
1901	1,201	1,353
1913	3,529	13,097
1914	18,794	41,367
1915	9,200	8,959
1916	17,066	12,573
1917	23,159	37,734
1918	29,360	28,953
1919	118,741	139,466
1920	148,227	270,333
1921	28,732	31,596
1922	6,648	9,827
1923	1,523	5,468

GEORGE LUEDERS & CO.

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Imports Into the United States

Oil, Perilla

	Pounds.	Dollars.
1913	.....	.....
1914	117,893	6,090
1915	69,174	5,485
1916	65,509	5,504
1917	442,619	39,276
1918	1,015,953	105,723
1919	1,430,163	201,412
1920	8,107,141	1,376,738
1921	3,783,757	466,504
1922	1,899,352	155,665
1923	6,652,224	734,193

Oil, Poppy Seed, Raw, Boiled or Oxidized

	Gallons.	Dollars.
1881	.....	1,279
1891	7,604	4,627
1901	3,125	2,388
1913	9,605	7,788
1914	7,973	6,422
1915	11,645	7,072
1916	6,337	6,816
1917	2,789	3,734
1918	20	112
1919	1,296	1,952
1920	422	1,451
1921	1,051	2,420
1922	1,691	1,754
1923	599	1,227

Oil, Rapeseed

	Gallons.	Dollars.
1881	.....	.....
1891	577,684	13,390
1901	.....	.....
1913	1,564,659	784,760
1914	1,463,099	704,747
1915	1,491,999	784,235
1916	2,534,679	1,414,022
1917	1,095,391	651,314
1918	2,751,875	2,697,152
1919	2,091,052	2,264,594
1920	1,229,526	1,525,747
1921	1,171,930	1,103,134
1922	1,351,827	929,370
1923	1,769,831	1,235,969

Oil, Rosemary

	Pounds.	Dollars.
1881	.....	6,597
1891	64,361	33,346
1901	31,283	14,723
1913	284,144	100,930
1914	85,243	30,177
1915	93,663	44,636
1916	95,815	30,544
1917	228,080	71,035
1918	204,106	71,541
1919	51,146	36,101
1920	309,210	228,749
1921	44,848	35,091
1922	159,250	63,755
1923	234,591	99,078

Oil, Roses, Attar of

	Ounces.	Dollars.
1871	10,146	46,242
1881	13,168	75,130
1891	43,599	188,612
1901	45,482	192,874
1913	133,325	791,370
1914	40,454	301,009
1915	60,011	252,592
1916	40,887	169,744
1917	11,235	85,673
1918	22,653	89,049
1919	24,827	210,925
1920	80,094	657,690
1921	36,886	263,980
1922	27,700	190,923
1923	169,878	487,154

Oil, Seal

	Gallons.	Dollars.
1871	188,076	100,984
1881	100	72
1891	250	97
1901	1,294	458
1913	8,972	3,131
1914	179,734	64,963
1915	479,571	166,836
1916	510,062	271,979
1917	518,657	301,138
1918	143,262	109,328
1919	583,553	612,241
1920	27,951	25,101
1921	107,802	29,726
1922	316,394	88,092
1923	455,147	188,047

Oil, Sesame

	Pounds.	Dollars.
1871	6,012	427
1881	540,520	40,519
1891	328,091	22,084
1901	626,189	48,637
1913	1,936,647	158,442
1914	1,389,649	118,075
1915	341,545	28,653
1916	257,874	22,293
1917	76,057	11,874
1918	346,211	51,178
1919	2,335,193	357,564
1920	5,257,695	804,529
1921	79,274	15,493
1922	55,182	10,877
1923	7,539,838	846,840

Oil, Soya Bean

	Pounds.	Dollars.
1913	12,440,406	635,882
1914	16,363,645	830,870
1915	19,210,028	901,643
1916	98,171,275	5,131,582
1917	162,734,010	11,410,606
1918	336,999,646	32,836,034
1919	244,104,805	28,878,840
1920	196,108,919	25,280,085
1921	49,843,640	3,991,747
1922	3,804,130	152,975
1923	22,818,945	2,017,517

Oil, Thyme

	Pounds.	Dollars.
1871	725	737
1881	30,401	16,023
1891	49,487	20,549
1901	37,634	29,729
1913	138,972	105,296
1914	89,148	63,564
1915	99,580	88,498
1916	92,097	85,913
1917	91,163	90,868
1918	206,185	242,254
1919	98,324	135,914
1920	102,973	179,370
1921	81,327	116,595
1922	156,906	206,626
1923	134,366	173,455

Oil, Valerian

	Pounds.	Dollars.
1871	31	283
1881	117	690
1891	.....	.....
1901	61	148
1913	40	124
1914	6	12
1915	15	36
1916	.....	.....
1917	.....	.....
1918	366	3,690
1919	.....	.....
1920	57	323
1921	.....	.....
1922	40	110
1922	40	110
1923	1,118	3,257

Oil, Whale (Includes Sperm Oil Prior to October 3, 1913)

	Gallons.	Dollars.
1871	146,797	82,758
1881	65,100	22,915
1891	51,005	14,813
1901	1,322	311
1913	1,166,339	278,208
*1914	82,756	26,553

* July 1 to October 3, 1913. Stated separately after October 3, 1913.

Oil, Whale, Sperm

	Gallons.	Dollars.
1914	157,142	66,652
1915	92,033	38,612
1916	59,816	25,191
1917	48,178	37,512
1918	60,328	70,229
7919	99,347	120,416
1920	124,183	102,128
1921	1,739	637
1922	24,720	13,594
1923	149,108	50,225

Oil, Whale, All Other

	Gallons.	Dollars.
1914	290,745	94,424
1915	604,503	215,644
1916	230,762	79,569
1917	415,163	234,097
1918	1,134,021	574,907
1919	156,915	133,998
1920	508,770	625,590
1921	308,917	113,120
1922	4,298,822	2,520,265
1923	3,587,883	1,895,664

Oleo, Stearin

	Pounds.	Dollars
1913	9,540,347	967,000
1914	5,679,535	497,973
1915	2,644,460	226,661
1916	910,478	81,280
1917	1,113,277	114,640
1918	6,575,379	1,118,413
1919	1,601,574	314,308
1920	1,307,847	274,545
1921	842,908	92,279
1922	378,222	32,596
1923	40,156	3,955

Opium, Aqueous Extract of, and Tinctures of, as Laudanum, Etc.

		Dollars.
1891	.....	219
1901	.....	660
1913	.....	671
1914	.....	5,279
1915	.....	5,565
1916	.....	6
1917	.....	222
1918	.....	.....
1919	.....	70
1920	.....	46
1921	.....	976
1922	.....	1,216
1923	.....	1,027

Opium, Crude, or Unmanufactured, Not Adulterated

	Pounds.	Dollars.
1871	158,620	918,974
1881	385,059	1,791,415
1891	621,749	1,582,461
1901	491,448	1,030,209
1913	441,277	2,130,154
1914	441,621	1,731,589
1915	353,006	1,699,217
1916	117,870	533,183
1917	43,016	330,652
1918	21,341	265,283
1919	74,264	977,596
1920	420,976	4,539,465
1921	78,842	428,188
1922	149,146	408,993
1923	113,730	365,441

Opium, Dried

	Pounds.	Dollars
1871	37,825	353,334
1881	76,446	761,349
1891	61,341	453,369
1901	139,519	1,141,518
1913	49,071	389,864
1914	32,095	205,684
1915	38,977	308,928
1916	44,052	243,790
1917	77,990	640,563
1918	98,498	1,514,127
1919	101,998	1,776,787
1920	1,672	14,433
1921	149	436
1922	1,525	5,869
1923	1,690	9,177

Opium Salts and Other Alkaloids of, Not Specially Provided for

	Ounces.	Dollars.
1871	.....	89
1881	97	15
1891	.....	.....
1901	.....	.....
1913	9,672	28,587
1914	11,593	64,528
1915	8,626	49,584
1916	2,360	9,981
1917	34,179	165,028
1918	20,479	126,882
1919	56,895	318,361
1920	28,793	155,979
1921	573	1,315
1922	4,625	17,646
1923	200	981

Orange Mineral

	Pounds.	Dollars.
1891	1,827,569	87,406
1901	869,251	50,587
1913	287,535	18,595
1914	362,963	24,692
1915	166,202	12,279
1916	108,275	10,589
1917	54,834	7,852
1918	9,506	1,407
1919	.....	.....
1920	62,534	6,147
1921	99,340	10,987
1922	60,727	5,901
1923	134,105	10,680

Orchil, or Orchil Liquid

	Pounds.	Dollars.
1871	.....	3,942
1881	.....	.....
1891	.....	81,974
1901	.....	31,937
1913	.....	27,386
1914	.....	21,569
1915	.....	37,802
1916	.....	114,603
1917	.....	98,905
1918	.....	55,612
1919	259,124	30,651
1920	634,570	63,380
1921	520,275	77,409
1922	424,398	56,030

Included in "Cudbear, etc." after 1922.

Orris, or Iris, Root

	Pounds.	Dollars.
1881	108,132	11,199
1891	230,448	25,376
1901	301,220	15,605
1913	357,963	37,326
1914	580,484	71,941
1915	554,125	52,893
1916	602,289	62,552
1917	527,539	61,494
1918	465,960	55,728
1919	406,273	68,956
1920	1,334,628	146,921
1921	235,522	17,602
1922	559,352	25,725
1923	585,905	29,760

Osmiridium

	Ounces, troy.	Dollars.
1914	666	43,659
1915	911	58,014
1916	302	9,654
1917	333	24,293
1918	158	16,015
1919	800	77,347
1920	2,814	302,070
1921	3,619	365,245
1922	2,735	273,401
1923	1,383	171,091

Osmium

	Ounces, troy.	Dollars.
1919	1,957	119,328
1920	624	29,021
1921	351	23,275
1922	608	46,153
1923	1,037	104,127

Palladium

	Ounces, troy.	Dollars.
1901	.....	1,455
1914	3,986	169,171
1915	40	2,779
1916	8,011	304,559
1917	1,063	95,331
1918	1,317	148,938
1919	2,020	77,642
1920	6,518	599,471
1921	5,817	424,472
1922	12,165	639,976
1923	12,339	697,854

Palm and Palm Nut Kernels

	Pounds.	Dollars.
1881	.....	819
1891	.....	1,273
1901	.....	.....
1913	.....	4,872
1914	.....	23,127
1915	.....	31,900
1916	.....	1,104,885
1917	.....	626,435
1918	.....	338,778
1919	19,590,551	339,708
1920	6,758,218	420,949
1921	4,545,057	217,080
1922	302,776	20,106
1923	797,896	58,370

Paraffin and Paraffin Wax

(Not including oil.)

	Pounds.	Dollars.
1891	62,439	4,880
1901	263,251	13,484
1913	11,521,295	503,802
1914	7,501,463	327,402
1915	5,628,811	254,389
1916	8,526,929	418,362
1917	10,641,404	654,186
1918	8,881,023	656,474
1919	6,600,404	754,351
1920	8,687,728	820,299
1921	5,714,653	630,575
1922	5,654,930	230,862
1923	11,935,679	476,184

Paris Green and London Purple

	Pounds.	Dollars.
1901	311,753	6,229
1913	165,820	7,692
1914	33,373	3,572
1915	16,800	2,975
1916	31,917	8,163
1917	.....	.....
1918	48	189
1919	18	14
1920	.....	.....
1921	992	372
1922	1,787	316
1923	102,429	20,912

Peanuts, Unshelled

	Pounds.	Dollars.
1871	5,139,877	128,318
1881	40,333	724
1891	304,335	6,553
1901	738,718	18,762
1913	12,140,612	459,003
1914	17,308,778	655,448
1915	15,075,387	480,693
1916	9,623,411	353,790
1917	7,710,082	330,769
1918	3,096,678	152,313
1919	1,304,409	92,291
1920	9,786,996	792,034
1921	5,968,952	466,224
1922	2,584,829	139,223
1923	4,177,730	178,142

Peanuts, Shelled

	Pounds.	Dollars.
1871	720,982	25,560
1881	5,751	432
1891	148,350	18,313
1901	55,621	1,938
1913	7,823,178	428,188
1914	21,819,101	987,499
1915	11,696,507	445,143
1916	19,739,888	740,276
1917	27,548,923	1,200,308
1918	70,947,036	4,358,197
1919	15,855,266	1,086,115
1920	102,285,543	9,534,498
1921	56,137,230	3,543,412
1922	5,748,982	259,432
1923	27,350,932	1,367,598

Pepper, Black and White, Unground

	Pounds.	Dollars.
1871	6,895,551	485,635
1881	8,661,633	741,119
1891	13,871,442	1,372,818
1901	15,022,896	1,752,167
1913	27,568,317	2,855,184
1914	21,809,875	2,179,995
1915	26,620,992	2,685,522
1916	32,174,546	3,789,406
1917	26,586,256	4,035,410
1918	32,132,953	4,928,582
1919	22,493,585	3,590,072
1920	27,736,965	4,693,669
1921	24,593,628	2,819,661
1922	25,855,510	2,532,304
1923	30,367,210	2,206,657

Pepper, Capsicum, Red or Cayenne, Unground

	Pounds.	Dollars.
1871	140,936	9,241
1881	66,834	8,414
1891	2,302,326	123,092
1901	2,038,797	143,137
1914	6,522,463	711,966
1915	3,093,232	332,616
1916	4,354,041	477,044
1917	4,734,381	47,343
1918	2,712,857	315,481
1919	1,950,920	226,294
1920	2,758,607	379,228
1921	2,683,311	391,199
1922	2,389,769	315,333
1923	6,032,003	703,889

Pepper, Capsicum, Red or Cayenne, Ground.

	Pounds.	Dollars.
1871	1,376	603
1881	25,353	3,829
1891	.....	.....
1901	.....	.....
1914	1,322,308	165,807
1915	1,827,666	207,379
1916	2,265,154	271,244
1917	3,636,876	455,897
1918	1,891,744	280,071
1919	2,112,371	626,188
1920	2,399,677	941,418
1921	2,537,883	624,078
1922	3,211,432	471,426
1923	3,896,586	560,298

Perfumery, Including Cologne and Other Toilet Waters, Containing Alcohol Etc.

	Pounds.	Dollars.
1871	.....	272,302
1881	.....	461,592
1891	.....	258,832
1901	.....	594,282
1913	286,025	819,685
1914	301,443	771,758
1915	240,075	689,930
1916	281,387	828,727
1917	359,200	1,085,369
1918	267,733	1,014,647
1919	221,041	911,014
1920	1,620,601	3,583,172
1921	1,774,025	3,639,951
1922	566,365	2,339,280
1923	635,812	3,036,899

Perfumery, Including Cologne and Other Toilet Waters, Not Containing Alcohol

	Pounds.	Dollars.
1922	1,556,411	2,149,714
1923	1,479,368	1,903,144

Persian Berry Extract for Dyeing

	Pounds.	Dollars.
1881	.....	.....
1891	.....	1,762
1901	.....	511
1913	64,883	7,173
1914	115,336	12,924
1915	92,876	12,245
1916	17,353	4,227
1917	8,507	1,837
1918	.....	.....
1919	.....	.....
1920	17,166	6,322
1921	.....	.....
1922	21,217	4,042
1923	15,322	2,634

Phenolphthalein.

	Pounds.	Dollars.
1914	14,078	14,090
1915	49,326	46,295
1916	11,432	9,740
1917	3,576	7,794
1918	.....	.....
1919	100	1,200
1920	200	726
1921	.....	.....
1922	5,120	2,421
1923	3,148	17,917

Phenylenediamine.

	Pounds.	Dollars.
1919	2,246	1,225
1920	2,929	2,431
1921	.....	.....
1922	.....	.....
1923	6	16

Phosphates, Crude.

	Tons.	Dollars.
1871	.....	165,763
1881	.....	918,835
1891	32,883	287,057
1901	23,535	152,780
1914	23,551	177,838
1915	2,601	26,982
1916	8,190	69,820
1917	96	1,420
1918	6	60
1919	32	328
1920	54	1,681
1921	841	9,795
1922	3,945	63,150
1923	10,729	153,410

Phosphorus.

	Pounds.	Dollars.
1871	.....	32,872
1881	.....	52,113
1891	151,166	53,590
1901	38,815	15,125
1914	605	264
1915	612	251
1916	.....	.....
1917	4,010	2,506
1918	88,602	57,572
1919	564,043	205,597
1920	99,806	23,462
1921	361,332	70,644
1922	648,135	86,884
1923	488,855	62,319

Photographic Chemicals (Coal Tar).

	Pounds.	Dollars.
1917	11,322	103,580
1918	11,492	80,865
1919	14,261	99,318
1920	15,477	72,109
1921	30,727	80,632
1922	11,650	25,917
1923	17,371	29,470

Imports Into the United States

Pimento, Unground

	Pounds.	Dollars.
1871	1,386,542	55,289
1881	1,774,344	159,960
1891	1,195,270	49,326
1901	4,254,196	208,793
1913	7,212,109	259,508
1914	1,517,971	54,506
1915	1,330,158	36,769
1916	1,355,575	46,241
1917	3,277,578	118,401
1918	4,064,556	182,847
1919	1,193,629	54 677
1920	4,064,481	314,583
1921	3,325,870	176,718
1922	4,345,769	131,117
1923	3,773,833	107,054

Pitch, Burgundy.

	Pounds.	Dollars.
1881	58,285	1,554
1891	212,627	3,520
1901	171,771	3,650
1913	977,629	43,799
1914	1,055,327	40,480
1915	131,967	4,051
1916	14,756	673
1917	25	3
1918	100	12
1919	.....	.....
1920	.....	.....
1921	3,776	476
1922	47,191	6,332
1923	61,400	3,321

Pitch, Marine Glue.

	Pounds.	Dollars
1913	303,196	14,392
1914	317,506	15,154
1915	56,532	3,807
1916	481,633	20,496
1917	327,311	18,447
1918	276,702	18,860
1919	164,348	11,287
1920	173,336	11 194
1921	230,177	15,188
1922	89,975	9,431
1923	446,318	20,766

Plaster Rock, or Gypsum, Crude.

	Tons.	Dollars.
1871	112,900	88,256
1881	144,682	128,107
1891	167,606	176,588
1901	197,144	213,317
1913	386,927	462,889
1914	417,580	482,320
1915	260,161	316,308
1916	306,757	372,308
1917	230,392	276,952
1918	141,106	176,959
1919	69,538	92,548
1920	191,918	282,601
1921	234,719	359,027
1922	295,593	454,192
1923	350,509	497,339

Plaster Rock, or Gypsum, Ground or Calcined.

	Tons.	Dollars.
1871	.....	64,465
1881	.....	24,915
1891	9,243	86,809
1901	2,520	15,606
1913	3,910	26,228
1914	4,292	30,225
1915	3,943	30,333
1916	6,494	36,322
1917	12,321	107,999
1918	11,828	79,335
1919	7,416	106,131
1920	7,536	110.333
1921	11,954	151,752
1922	3 617	51,591
1923	2,088	45,463

Plasters, Healing, or Curative, and Court Plaster.

		Dollars.
1901	.....	6,911
1913	.....	4,639
1914	.....	10,929
1915	.....	7,171
1916	.....	8,004
1917	.....	7,571
1918	.....	5,531
1919	.....	7,278
1920	.....	9.244
1921	.....	12,595
1922	.....	6,972
1923	.....	13,571

Plumbago or Graphite.

	Tons.	Dollars.
1871	2,904	136,200
1881	8,489	381,966
1891	10,126	509,719
1901	13,110	930,002
1913	25,233	1,972,177
1914	24,866	1,846,074
1915	17,057	1,387,873
1916	30,938	4,298,536
1917	42,270	9,678,160
1918	25,440	6,018,662
1919	18,670	2.222,519
1920	20,924	2,346,302
1921	14,797	1,160,054
1922	6,279	345,815
1923	15,936	548,567

Polishing and Cleaning Creams, Except Blanco Polish

		Dollars.
1891	.....	42,971
1901	.....	.....
1914	.....	6,065
1915	.....	11,600
1916	.....	14,133
1917	.....	7,208
1918	.....	22,879
1919	.....	18,402
1920	.....	15,082
1921	.....	20,235
1922	.....	11,845
1923	.....	34,600

Potash, Bicarbonate of

	Pounds.	Dollars.
1871	170,823	10,550
1881	798,585	39,214
1891	76,828	4,344
1901	73,770	5,054
1913	311,645	14,295
1914	478,853	22,767
1915	383,534	20,341
1916	2,062	614
1918	171,528	84,381
1919	87,946	25,115
1920	5,008	1,200
1917	10,053	5,273
1921	594,287	116,495
1922	381,605	19,896
1923	703,325	38,396

Potash, Bichromate and Chromate of.

	Pounds.	Dollars.
1871	2,170,473	223,529
1881	4,404,237	402,088
1891	1,234,085	95,261
1901	200,519	14,401
1913	27,671	2,601
1914	34,860	2,822
1915	40,227	3,317
1916	2,291	391
1917	2,404	962
1918	20	8
1919	.....	.....
1920	19,864	6,961
1921	331	89
1922	74,850	7,052
1923	8,301	1,710

Potash, Carbonate of, Crude.

	Pounds.	Dollars.
1901	18,888,612	627,601
1913	10,063,912	295,066
1914	9,046,302	240,451
1915	8,620,504	291,341
1916	444,241	27,689
1917	1,069,408	185,910
1918	9,183,741	2,928,288
1919	1,092,792	378,745
1920	15,916,283	301,541
1921	3,515,339	369,699
1922	4,097,490	176,742

Not stated separately after 1922.

Potash, Carbonate of, Refined.

	Pounds.	Dollars.
1891	7,241,999	259,537
1901	3,448,349	112,783
1913	14,035,111	412,587
1914	10,421,005	368,958
1915	2,377,940	92,959
1916	174,587	38,604
1917	202,885	53,170
1918	445,282	124,019
1919	130,040	40,980
1920	1,318,531	144,407
1921	577,275	162,255
1922	266,527	16,455

Not stated separately after 1922.

Potash, Carbonate of

	Pounds.	Dollars.
1923	9,463,808	503,252

Potash, Caustic or Hydrate of, Unrefined.

	Pounds.	Dollars.
1901	3,840,777	180,277
1912	8,422,007	330,684
1913	8,994,449	348,501
1914	8,565,451	326,650

Not stated separately after 1922.

Potash, Caustic or Hydrate of, Refined.

	Pounds.	Dollars.
1901	86,798	7,195
1912	77,184	8,097
1913	112,822	11,920
1914	18,751	1,977

Not stated separately after 1922.

Potash, Chlorate of.

	Pounds.	Dollars.
1871	395,068	85,315
1881	1,086,781	150,444
1801	3,361,838	341,661
1901	1,103,379	67,383
1913	1,235,732	66,609
1914	40,319	3,408
1915	27,419	4,614
1916	.....	.....
1917	437,339	194,008
1918	1,029,980	610,702
1919	315,565	118,498
1920	698,385	87,205
1921	2,060,124	179,563
1922	8,806,221	327,539
1923	9,040,975	439,730

Potash, Crude, or Black Salts.

	Pounds.	Dollars.
1881	.....	1,227
1891	.....	.....
1901	.....	.....
1914	2,599,883	52,454
1915	4,076,783	83,502
1916	1,504,149	53,752
1917	2,819,235	233,111
1918	727,588	112,235
1919	268,441	12,814
1920	4,912,740	144,317
1921	10,681,304	309,080
1922	3,642,249	84,884

Not stated after 1922.

Potash, Cyanide of.

	Pounds.	Dollars.
1901	2,029,993	475,833
1913	950,890	137,535
1914	1,236,799	183,259
1915	747,627	143,331
1916	43,705	9,311
1917	70,147	49,513
1918	13,455	3,150
1919	444,581	32,161
1920	5,175,608	430,873
1921	13,353,271	977,664
1922	2,007,752	175,019
1923	3,019,859	243,809

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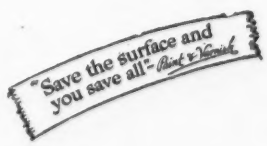

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Imports Into the United States

Potash, Hydroxide (Caustic)

	Pounds.	Dollars.
1891	1,891,607	85,535
1915	4,993,471	225,002
1916	39,770	9,222
1917	74,780	33,648
1918	11,732	4,398
1919	466,620	124,563
1920	782,477	220,163
1921	4,934,697	474,479
1922	15,079,586	685,716
1923	11,105,132	692,835

See "Potash, Caustic, Etc.," for 1912, 1913 and 1914.

Potash, Muriate of.

	Tons.	Dollars.
1871	.....	61,270
1881	11,401	335,799
1891	37,927	1,182,007
1901	69,281	2,083,641
1913	223,887	6,737,737
1914	234,856	7,925,781
1915	102,882	3,660,353
1916	2,126	460,888
1917	606	174,806
1918	596	166,979
1919	1,677	201,307
1920	110,324	11,038,173
1921	49,911	5,290,144
1922	13[illegible]423	5,549,580
1923	149,372	4,694,569

Potash, Nitrate of, Crude.

(See Saltpeter, Crude.)

Potash, Nitrate of, Refined.

	Tons.	Dollars.
1871	67	7,820
1881	162	19,535
1891	79	6,194
1901	216	18,433
1913	197	22,142
1914	166	20,173
1915	34	4,222
1916	2	749
1917	288	85,143
1918	43	16,193
1919	1	96
1920	103	20,658
1921	14,444	107,649
1922	683	48,558
1923	1,974	554,097

Potash, Permanganate of.

	Pounds.	Dollars.
1871	2,735,769	112,521
1881	.....	.....
1891	.....	.....
1901	.....	.....
1913	357,366	25,314
1914	1,351,855	91,065
1915	1,039,304	78,924
1916	214,291	57,306
1917	6,946	11,727
1918	43,826	106,104
1919	18,107	43,830
1920	9,446	5,100
1921	104,041	47,984
1922	856,067	109,085
1923	922,791	116,996

Potash, Prussiate of, Red.

	Pounds.	Dollars.
1871	17,480	7,222
1881	106,424	49,685
1891	35,826	10,650
1901	30,262	7,357
1913	65,316	11,302
1914	89,976	15,325
1915	83,574	14,922
1916	2,560	3,520
1917	4,523	10,425
1918	9,824	18,496
1919	13,992	25,497
1920	37,506	52,483
1921	66,004	30,232
1922	39,716	15,121
1923	114,142	75,850

Potash, Prussiate of, Yellow.

	Pounds.	Dollars.
1871	255,325	58,009
1881	544,167	108,954
1891	2,223,154	388,366
1901	1,609,358	218,908
1913	2,812,408	309,302
1914	3,508,228	390,921
1915	2,316,736	255,711
1916	44,156	31,651
1917	41,128	32,251
1918	134,638	111,096
1919	58,003	45,869
1920	1,141,224	188,797
1921	398,961	99,211
1922	515,633	109,228
1923	603,272	150,122

Potash, Sulphate of.

	Tons.	Dollars.
1891	1,362	49,619
1901	15,632	558,136
1913	48,023	1,798,369
1914	44,986	1,887,491
1915	21,705	1,071,623
1916	2,427	197,808
1917	656	20,538
1918	136	19,837
1919	137	23,304
1920	6,556	1,073,322
1921	12,081	1,660,798
1922	45,280	2,085,348
1923	51,885	2,118,979

Potassium, Iodide.

	Pounds.	Dollars.
1871	17,842	49,503
1881	480	1,267
1891	1,024	935
1901	663	1,328
1913	120	230
1914	270	491
1915	4	13
1916	309	1,032
1917	24,357	58,782
1918	65,992	133,611
1919	25,963	74,834
1920	11,377	34,766
1921	890	2,435
1922	.....	.....
1923	14	92

Potassium, Metal

	Pounds.	Dollars.
1921	15,227	581
1922	42,869	3,643
1923	4,013	740

Press Cloth for Oil Milling Purposes

	Pounds.	Dollars.
1920	8,502	9,225
1921	11,582	13,643
1922	8,401	6,559
1923	32,560	40,372

Putty (Whiting and Paris White), Ground in Oil.

	Pounds.	Dollars.
1871	5,534	118
1881	287	28
1891	122	14
1901	15,362	878
1913	36,434	881
1914	37,020	911
1915	18,078	343
1916	16,082	386
1917	33,286	1,472
1918	36,398	3,781
1919	4,735	811
1920	96,572	4,717
1921	393,136	12,420
1922	744,495	13,947
1923	871,458	18,519

Pyrethrum or Insecticide Flowers.

	Pounds.	Dollars.
1918	2,298,476	422,751
1919	3,399,026	667,374
1920	6,827,700	2,672,576
1921	3,958,657	1,749,213
1922	2,600,093	789,988
1923	3,962,222	1,742,108

Pyridine and Quinoline.

	Pounds.	Dollars.
1918	11,981	1,051
1919	123,049	15,248
1920	493,383	56,604
1921	434,668	121,437
1922	148,911	22,075
1923	363,762	92,398

Pyroxylin Compounds, or Other Cellulose Esters

	Pounds.	Dollars.
1881	.....	2
1891	.....	11,785
1901	.....	725
1913	.....	288,639
1914	.....	583,391
1915	.....	371,714
1916	.....	127,627
1917	.....	53,693
1918	.....	53,054
1919	.....	43,172
1920	.....	77,673
1921	.....	155,536
1922	84,442	36,069
1923	538,231	629,972

Quebracho Extract.

	Pounds.	Dollars.
1913	63,604,814	1,672,314
1914	99,605,839	2,699,104
1915	125,565,857	3,676,749
1916	81,501,892	5,432,458
1917	61,977,849	5,382,433
1918	101,523,282	4,917,212
1919	137,151,143	5,856,803
1920	154,944,717	8,123,641
1921	110,184,308	6,602,449
1922	134,274,423	5,205,641
1923	119,825,707	4,716,221

Quebracho Wood.

	Tons.	Dollars.
1913	101,869	1,300,126
1914	73,957	900,880
1915	54,715	750,873
1916	106,804	1,598,465
1917	95,211	1,086,946
1918	53,871	848,671
1919	2,689	31,048
1920	33,672	480,503
1921	32,901	531,566
1922	23,987	265,910
1923	42,297	556,354

Quicksilver, or Mercury

	Pounds.	Dollars.
1871	239,223	107,646
1881	138,517	57,733
1891	457,056	254,837
1901	1,666	899
1913	880	887
1914	444,673	192,609
1915	561,924	292,244
1916	554,852	595,057
1917	242,526	239,401
1918	580,460	641,316
1919	319,074	358,595
1920	1,227,582	1,184,374
1921	728,105	616,517
1922	986,956	502,824
1923	1,506,682	960,823

Quicksilver Flasks or Bottles, and Drums Used in Exporting Acids

		Dollars.
1913	.....	259,123
1914	.....	280,620
1915	.....	180,676
1916	.....	204,642
1917	.....	168,955
1918	.....	393,528
1919	.....	861,168
1920	.....	855,963
1921	.....	895,725
1922	.....	1,145,102
1923	.....	344,278

Quinia, Sulphate of.

	Ounces.	Dollars.
1871	10,861	12,261
1881	408,851	1,052,228
1891	3,079,000	805,729
1901	3,495,996	1,078,472
1913	2,279,734	397,409
1914	2,224,765	486,641
1915	1,508,931	378,511
1916	1,409,228	1,022,821
1917	623,947	324,438
1918	1,258,172	593,019
1919	2,101,006	1,238,125
1920	2,888,550	1,376,514
1921	1,935,531	1,489,166
1922	1,008,600	594,178
1923	2,926,988	1,176,803

Radium, Salts and Radio-active Substances

	Grains.	Dollars.
1914	.....	29,983
1915	.....	29,983
1916	.....	8,712
1917	.....	50
1918	.....	.....
1919	11	302
1920	12	11,033
1921	807	3,027
1922	913	15,719
1923	80	268,646

Red Lead.

	Pounds.	Dollars.
1871	1,295,616	78,411
1881	212,423	10,009
1891	519,613	20,950
1901	524,935	23,933
1913	145,478	7,223
*1914	69,867	5,674
1915	6,697	342
1916	196	43
1917	20,471	5,296
1918	5	1
1919	7,184	1,134
1920	345	73
1921	22,772	1,720
1922	12,715	729
1923	1,110	72

* 29,940 pounds, $5,681, came in free of duty for construction and equipment of vessels.

Rennets, Raw or Prepared.

	Pounds.	Dollars.
1871	.....	254
1881	.....	34,261
1891	.....	90,042
1901	.....	90,812
1913	.....	129,588
1914	.....	129,720
1915	.....	106,614
1916	.....	86,694
1917	.....	13,154
1918	.....	62,173
1919	40,905	97,964
1920	185,352	159,039
1921	122,968	72,092
1922	186,939	81,351
1923	287,201	75,176

Resorcinol

	Pounds.	Dollars.
1920	5,159	2,642
1921	156,028	112,312
1922	.....	.....
1923	6,720	8,390

Rhubarb Root.

	Pounds.	Dollars.
1881	163,519	42,607
1891	90,592	18,406
1901	216,803	20,766
1913	121,701	16,554
1914	181,240	22,354
1915	233,699	24,592
1916	155,924	17,701
1917	238,601	32,084
1918	190,962	20,879
1919	119,245	46,903
1920	283,138	234,757
1921	109,626	64,997
1922	125,212	44,088
1923	197,518	58,047

Rochelle Salts. See "Tartrate of Soda"

Rose Leaves.

	Pounds.	Dollars.
1891	.....	6,966
1901	.....	1,678
1913	.....	67
1914	.....	1,434
1915	.....	484
1916	.....	1,060
1917	.....	4,199
1918	.....	4,164
1919	1,399	557
1920	25,627	10,566
1921	9,536	4,153
1922	7,255	2,606
1923	14,671	3,427

Rosin, Violin.

		Dollars.
1871	.....	460
1881	.....	4,636
1891	.....	136
1901	.....	3,470
1913	.....	30,621
1914	.....	11,625
1915	.....	6,532
1916	.....	4,803
1917	.....	2,872
1918	.....	3,746
1919	.....	2,292
1920	.....	6,506
1921	.....	7,300
1922	.....	8,021
1923	.....	16,664

Saccharin.

	Pounds.	Dollars.
1901	29,334	35,734
1913	47	64
1914	8	30
1915	5,617	6,737
1916	12,954	76,789
1917	1,596	18,276
1918	1	48
1919	.....	.....
1920	.....	.....
1921	40	39
1922	46	118
1923	1	14

Saffron, Safflower, and Saffron Cake, Extract of, Not Containing Alcohol

	Pounds.	Dollars.
1871	.....	294
1881	.....	54,326
1891	.....	44,599
1901	.....	42,502
1913	.....	93,146
1914	.....	85,678
1915	.....	70,132
1916	.....	111,420
1917	.....	124,235
1918	.....	54,109
1919	16,459	77,273
1920	25,704	133,732
1921	22,969	67,454
1922	26,273	88,584
1923	16,215	63,506

Sage, Unground.

	Pounds.	Dollars.
1913	1,209,120	19,893
1914	2,005,469	39,309
1915	822,083	48,454
1916	1,865,815	130,464
1917	1,528,828	92,409
1918	1,364,295	150,004
1919	977,440	143,257
1920	1,418,414	159,878
1921	2,270,304	174,773
1922	1,562,480	66,391
1923	1,877,407	55,379

Sago, Crude, and Sago Flour.

	Pounds.	Dollars.
1871	1,719,256	45,601
1881	1,247,219	38,845
1891	3,970,504	101,303
1901	51,991	1,588
1913	12,389,192	230,992
1914	9,970,717	160,924
1915	6,630,400	106,000
1916	10,999,587	234,073
1917	7,893,055	204,864
1918	22,179,761	654,261
1919	3,092,967	104,915
1920	6,115,486	332,327
1921	2,591,377	86,583
1922	5,868,870	132,454
1923	7,591,363	206,265

Salicin.

	Pounds.	Dollars.
1881	.....	6,410
1891	4,987	6,428
1901	4,506	14,935
1913	3,274	12,146
1914	4,129	14,982
1915	1,800	6,560
1916	453	2,135
1917	390	2,307
1918	319	2,845
1919	560	5,791
1920	1,374	16,379
1921	1,843	19,771
1922	2,000	7,770
1923	2,618	6,641

Salol.

	Pounds.	Dollars.
1914	660	219
1915	23,430	11,445
1916	4,069	2,182
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	.....	.....

Salt.

	100 pounds.	Dollars.
1912	2,901,815	379,540
1913	2,508,561	356,911
1914	3,397,496	456,426

Stated separately after 1914; see following classes.

Salt in Bags, Barrels or Other Packages.

	100 pounds.	Dollars.
1871	2,839,938	800,454
1881	4,124,422	1,242,543
1891	1,736,861	584,845
1901	1,114,571	372,482
1915	620,462	213,676
1916	552,616	195,791
1917	375,558	176,784
1918	268,426	158,832
1919	117,690	107,941
1920	1,463,794	280,684
1921	643,076	264,852
1922	784,226	322,153
1923	417,370	210,260

Salt in Bulk.

	100 pounds.	Dollars.
1871	2,747,351	335,318
1881	5,293,610	658,068
1891	2,504,581	258,270
1901	1,920,837	187,681
1915	1,959,638	172,888
1916	1,591,032	134,975
1917	1,808,867	158,096
1918	755,044	145,640
1919	577,416	99,988
1920	292,446	174,364
1921	1,843,017	365,190
1922	*1,817,899	295,588
1923	1,412,040	335,020

Salt Cake

	Tons.	Dollars.
1871	.....	2,436
1881	698	8,187
1891	8,457	85,368
1901	3,412	34,645
1913	189	4,771
1914	206	2,486
1915	189	3,566
1916	91	6,392
1917	216	4,122
1918	463	8,382
1919	28	168
1920	.....	.....
1921	152	2,855
1922	189	5,994
1923	3,208	46,712

Saltpeter, Crude.

	Pounds.	Dollars.
1871	5,072,381	208,423
1881	11,014,226	414,630
1891	16,090,486	494,121
1901	41,343,897	473,578
1913	10,989,382	288,995
1914	3,547,252	115,470
1915	677,785	22,483
1916	5,412,130	734,123
1917	10,171,654	904,506
1918	8,715,327	956,853
1919	34,557,048	1,298,391
1920	20,862,012	929,045
1921	30,868,786	1,407,044
1922	6,208,779	189,569
1923	5,581,009	168,410

Santonin, and Its Combination with Acids

	Pounds.	Dollars.
1871	983	6,035
1881	483	2,317
1891	5	7
1901	6,584	11,984
1913	1,982	44,358
1914	5,230	125,128
1915	912	25,558
1916	20,925	586,850
1917	111	3,966
1918	223	7,502
1919	1,125	49,688
1920	2,778	162,335
1921	2,613	230,864
1922	7,960	959,153
1923	1,292	203,974

Sarsaparilla Root.

	Pounds.	Dollars.
1871	242,314	46,067
1881	270,820	63,641
1891	631,985	90,694
1901	675,928	55,790
1913	301,308	38,360
1914	224,970	36,284
1915	250,178	36,055
1916	291,276	41,489
1917	146,047	18,994
1918	110,709	31,454
1919	221,946	58,126
1920	289,175	90,291
1921	128,043	38,346
1922	179,388	46,584
1923	186,763	51,510

Seed, Anise

	Pounds.	Dollars.
1871	93,847	8,625
1881	367,186	29,386
1891	300,880	19,348
1901	391,659	20,356
1913	1,250,831	84,941
1914	231,117	15,412
1915	432,863	30,932
1916	789,487	68,713
1917	475,100	67,221
1918	364,406	61,330
1919	261,837	34,610
1920	658,425	115,358
1921	292,620	39,640
1922	441,085	46,913
1923	461,067	66,869

Seed, Canary

	Pounds.	Dollars.
1871	2,226,560	56,952
1881	3,037,620	86,838
1891	7,711,060	122,671
1901	3,731,800	67,791
1913	6,219,623	184,596
1914	4,503,280	190,530
1915	4,911,298	208,835
1916	5,368,551	181,898
1917	4,909,107	166,774
1918	3,242,223	201,469
1919	3,953,049	406,883
1920	7,084,523	538,554
1921	5,596,315	255,178
1922	8,255,957	254,394
1923	9,936,544	319,151

Imports Into the United States

Seed, Caraway

	Pounds.	Dollars.
1871	.....	113,387
*1881	1,801,860	49,542
1891	1,606,501	53,808
1901	1,281,382	77,273
1913	3,691,831	234,294
1914	1,909,300	107,599
1915	2,895,418	172,742
1916	2,978,581	280,146
1917	505,804	71,745
1918	635,677	247,499
1919	579,590	204,493
1920	2,475,082	315,846
1921	2,443,550	154,389
1922	3,707,392	203,568
1923	3,135,176	394,054

* Includes "Coriander."

Seed, Castor—See "Castor Beans"

Seed, Cardamom

	Pounds.	Dollars.
1871	5,557	13,932
1881	42,456	66,079
1891	41,399	21,945
1901	60,252	32,305
1913	113,461	104,287
1914	80,782	72,148
1915	152,679	106,180
1916	225,687	119,162
1917	214,464	88,605
1918	253,328	108,505
1919	139,808	70,114
1920	210,871	107,507
1921	190,312	101,581
1922	245,815	77,487
1923	318,368	70,847

Seed, Celery

	Pounds.	Dollars.
1914	405,738	86,809
1915	639,673	117,475
1916	607,581	161,839
1917	755,532	142,164
1918	167,684	65,563
1919	318,544	182,810
1920	938,027	314,160
1921	386,786	50,377
1922	763,906	139 273
1923	418,495	132,723

Seed, Coriander

	Pounds.	Dollars.
1871	45,189	2,574
*1881	.....	.....
1891	.....	.....
1901	655,382	17,092
1913	1,324,735	35,817
1914	1,238,430	46,158
1915	1,496,288	36,851
1916	1,587,923	54,870
1917	1,111,127	124,098
1918	1,829,183	255,279
1919	2,325,578	215,538
1920	2,179,989	94,996
1921	472,239	13,643
1922	1,996,314	77,314
1923	1,938,893	158,850

* Included in "Caraway."

Seed, Cotton

	Pounds.	Dollars.
1901	1,979,718	7,206
1914	8,891,303	66,035
1915	22,724,868	114,983
1916	30,113,684	251,568
1917	53,362,927	932,335
1918	35,435,460	1,047,657
1919	62,965,821	1,308,493
1920	59,906,675	1,687,974
1921	89,458,235	649,138
1922	59,937,765	518,406
1923	56,236,520	438,095

Seed, Cummin

	Pounds.	Dollars.
1871	1,065	180
*1881	.....	.....
*1891	496,723	12,087
*1901	1,090,261	22,744
1913	529,667	27,178
1914	530,550	31,709
1915	694,344	83,534
1916	1,446,006	225,672
1917	1,159,598	207,012
1918	1,520,691	198,855
1919	971,982	117,217
1920	1,836,564	167,292
1921	788,493	49,812
1922	1,126,887	103,796
1923	580,929	104,310

* Includes "Fenugreek."

Seed, Fennel

	Pounds.	Dollars.
1871	6,643	562
1881	150,062	9,313
1891	.....	.....
1901	107,523	6,918
1913	187,665	14,410
1914	207,135	12,299
1915	293,810	13,622
1916	312,927	20,751
1917	443,704	48,497
1918	218,091	24,133
1919	160,584	20,412
1920	282,522	84,963
1921	143,594	17,468
1922	222,650	18,479
1923	436,278	48,421

Seed, Fenugreek

	Pounds.	Dollars.
1871	16,457	571
1913	1,944,407	37,434
1914	1,619,230	29,601
1915	1,434,826	30,295
1916	811,270	20,672
1917	1,052,843	71,102
1918	851,532	80,504
1919	1,673,229	131,996
1920	1,043,036	44,168
1921	746,386	17,995
1922	207,192	4,932
1923	1,112,671	42,920

Seed, Flaxseed or Linseed

	Bushels.	Dollars.
1871	4,113,586	5,977,926
1881	4,787,466	1,126,370
1891	1,479,239	1,629,901
1901	1,533,997	1,965,913
1913	5,274,922	8,118,319
1914	8,652,022	10,571,656
1915	10,373,902	12,983,548
1916	14,637,543	20,151,633
1917	12,484,859	25,295,231
1918	12,785,034	33,830,735
1919	8,433,426	22,643,803
1920	23,367,328	76,741,019
1921	16,168,523	39,132,988
1922	13,630,598	26,018,280
1923	24,988,621	50,399,196

Seed, Flaxseed Screenings

	Pounds.	Dollars.
1914	.....	4,748
1915	.....	673
1916	.....	4,506
1917	.....	2,052
1918	.....	37,818
1919	13,970,091	84,207
1920	31,055,702	183,710
1921	25,993,195	105,630
1922	18,320,345	46,247
1923	26,308,766	54,995

Seed, Hemp

	Pounds.	Dollars.
1871	857,396	28,224
1881	1,324,355	26,403
1891	3,558,146	73,409
1901	1,769,375	36,336
1913	2,347,979	44,483
1914	2,031,438	38,315
1915	2,591,026	39,992
1916	4,036,614	63,163
1917	5,355,921	110,176
1918	449,772	12,232
1919	760,353	26,395
1920	5,194,599	264,652
1921	3,763,970	82,245
1922	2,925,317	63,566
1923	4,055,649	88,983

Seed, Mustard

	Pounds.	Dollars.
1871	1,608,270	103,192
1881	1,157,832	63,240
1891	2,871,660	92,052
1901	4,489,206	159,993
1913	12,719,682	417,370
1914	11,543,941	370,964
1915	10,157,934	543,586
1916	16,402,112	1,070,567
1917	9,962,122	776,546
1918	13,035,827	693,096
1919	11,272,770	842,033
1920	14,817,829	1,510,783
1921	4,618,253	253,903
1922	12,490,026	487,569
1923	12,958,622	582,434

Seed, Oilseed, Not Elsewhere Specified

	Bushels.	Dollars.
1901	174,635	237,856
1913	13,519	33,289
1914	79,097	104,072
1915	13,547	28,752
1916	18,958	39,359
1917	30,939	76,948
1918	309,687	755,746
1919	13,856	46,038
1920	40,863	169,900
1921	133,451	477,977
1922	300,308	559,569
1923	12,95,8622	582,434

Quantity stated in pounds after 1922.

Seed, Pepper

	Pounds.	Dollars.
1913	10,414	4,579
1914	11,536	4,879
1915	15,324	6,379
1916	14,900	6,202
1917	4,962	2,846
1918	21,884	15,964
1919	7,022	11,042
1920	1,997	2,159
1921	5,376	4,391
1922	7,275	5,527
1923	3,335	3,062

Seed, Poppy

	Bushels.	Dollars.
1891	5,323	13,108
1901	22,686	37,440
1913	77,396	237,069
1914	56,322	126,744
1915	52,899	172,018
1916	26,648	176,776
1917	3,878	25,565
1918	130,024	215,840
1919	11,320	29,206
1920	33,745	363,369
1921	86,096	476,246
1922	94,637	388,644
1923	105,587	640,399

Seed, Rape

	Pounds.	Dollars.
1871	145,323	6,450
1881	531,412	19,986
1891	891,441	19,681
1901	1,702,504	71,527
1913	4,308,750	169,634
1914	5,970,937	211,301
1915	5,194,132	230,280
1916	9,977,353	311,212
1917	4,819,360	186,877
1918	12,873,276	741,810
1919	742,780	43,935
1920	6,905,051	456,402
1921	4,934,014	277,547
1922	5,892,308	267,330
1923	7,117,384	326,711

Seed, Soya Bean

	Pounds.	Dollars.
1914	1,929,435	49,507
1915	3,837,865	87,306
1916	3,003,065	78,963
1917	5,334,334	132,572
1918	31,805,997	692,964
1919	3,203,203	145,996
1920	4,022,552	213,696
1921	4,661,458	190,674
1922	3,111,866	118,953
1923	3,605,736	148,428

Selenium and Salts of

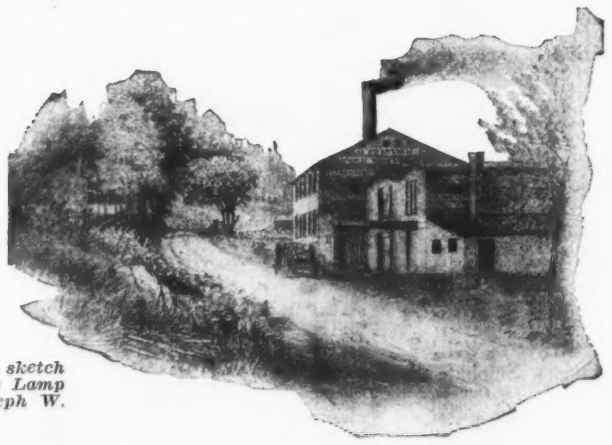
	Pounds.	Dollars.
1914	.....	363
1915	.....	43
1916	.....	16
1917	.....	302
1918	.....	2,236
1919	.....	.....
1920	114	25,866
1921	1,104	2,092
1922	1,654	2,534
1923	935	1,636

Senna Leaves

	Pounds.	Dollars.
1891	.....	51,876
1901	.....	91,884
1913	2,634,117	150,555
1914	2,454,772	173,054
1915	2,180,288	209,313
1916	2,794,400	361,881
1917	5,116,315	844,733
1918	3,575,066	771,067
1919	2,554,069	628,852
1920	3,425,200	572,419
1921	2,780,666	349,839
1922	1,946,635	191,538
1923	3,130,187	244,169

Sheep Dip

	Pounds.	Dollars.
1891	.....	893
1901	.....	59,016
1913	.....	63,527
1914	.....	16,842
1915	.....	32,963
1916	.....	21,198
1917	.....	17,185
1918	.....	26,989
1919	88,335	6,958
1920	172,562	12,886
1921	53,450	5,240
1922	10,377	1,480
1923	103,952	6,549



Reproduced from a sketch made in 1871 of the Lamp Black Plant of Joseph W. Binney.

From a Humble Beginning

1864, in a small shed at Peekskill, N. Y., Joseph W. Binney started what was destined to develop into the present organization of Binney & Smith Co.

Lamp Black was first manufactured and subsequently the business was expanded by adding dry colors, imported Venetian and Indian Reds, and also White Arsenic.

The manufacture and sale of Carbon Black, now an important phase of the business, was begun in 1881.

The years of growth have been further marked by the addition of other Blacks, such as Bone, Ivory, Drop and Mineral, also Oxides of Iron, Smalts, etc., so that the present organization offers a wide variety of products for use in the arts and industries.

The underlying policy of the Company since its humble beginning until the present day, has always been to strive to give value for value received.

BINNEY & SMITH COMPANY

41 East 42nd Street **New York City**

Imports Into the United States

Sienna and Sienna Earths

	Pounds.	Dollars.
1891	1,147,282	24,070
1901	795,996	14,624
1914	6,489,329	55,925
1915	6,656,031	64,658
1916	5,206,292	83,428
1917	2,990,972	61,163
1918	2,731,181	61,301
1919	2,060,857	48,237
1920	2,555,705	76,715
1921	5,111,832	150,857
1922	2,590,299	102,534
1923	2,867,886	103,713

Silver Leaf

	100 leaves.	Dollars.
1871	1,160	5,500
1881	250	919
1891	1	15
1901	30	85
1913	17,130	2,122
1914	34,070	4,353
1915	31,298	3,718
1916	6,445	802
1917	1,125	135
1918	1,750	382
1919	.....	.....
1920	3,955	1,334
1921	8,650	3,446
1922	4,412	741
1923	4,475	837

Slag, Basic, Ground or Unground, for Fertilizers

	Tons.	Dollars.
1913	5,124	146,477
1914	9,509	108,565
1915	561	7,309
1916	81	1,031
1917	41	549
1918	2	54
1919	117	2,305
1920	22	689
1921	.....	.....
1922	33	938
1923	487	12,218

Soap, Castile

	Pounds.	Dollars.
1901	3,842,827	245,876
1914	4,604,995	368,310
1915	4,067,921	341,107
1916	3,245,550	335,580
1917	2,390,356	306,126
1918	1,027,148	147,286
1919	955,088	143,906
1920	2,170,294	380,981
1921	2,039,498	310,015
1922	2,289,479	289,635
1923	1,827,204	199,626

Soap, Medicinal

	Pounds.	Dollars.
1914	74,132	29,306
1915	32,048	14,082
1916	16,455	3,523
1917	4,287	1,975
1918	16,844	7,412
1919	9,745	8,853
1920	10,217	4,568
1921	20,338	16,193
1922	29,183	9,193
1923	32,891	4,773

Soap, Toilet, Perfumed

	Pounds.	Dollars.
1871	.....	76,490
1881	.....	77,312
1891	.....	281,255
1901	.....	413,819
1914	.....	248,194
1915	.....	193,646
1916	.....	147,819
1917	.....	184,613
1918	.....	125,275
1919	137,301	113,996
1920	242,632	153,638
1921	363,966	227,624
1922	648,243	283,514
1923	601,134	241,129

Soap, Toilet, Unperfumed

	Pounds.	Dollars.
1871	.....	228,061
1881	.....	175,439
1891	.....	251,955
1914	.....	100,650
1915	.....	140,048
1916	.....	82,057
1917	.....	64,570
1918	.....	13,635
1919	39,151	12,110
1920	67,944	17,600
1921	85,635	18,001
1922	625,098	108,442
1923	442,499	85,943

Soap, All Other, Not Specially Provided For

	Pounds.	Dollars.
1891	.....	45,560
1901	.....	14,478
1914	.....	84,745
1915	.....	53,940
1916	.....	18,245
1917	.....	21,406
1918	.....	31,639
1919	151,526	15,038
1920	198,233	22,189
1921	341,480	36,479
1922	498,572	57,539
1923	1,952,481	214,249

Soda, Arsenate of

	Pounds.	Dollars.
1901	74,614	2,122
1914	228,270	8,267
1915	85,850	3,188
1916	36,176	3,436
1917	23,296	2,404
1918	35	88
1919	.....	.....
1920	11,448	1,118
1921	131,915	11,946
1922	14,146	1,122
1923	2,671	360

Soda, Ash

	Pounds.	Dollars.
1871	145,428,215	2,387,583
1881	295,227,766	4,154,258
1891	326,099,239	4,122,700
1901	34,443,555	306,982
1913	3,100,790	35,461
1914	2,228,991	28,100
1915	2,127,542	29,022
1916	878,175	20,718
1917	1,047,295	29,239
1918	1,514,765	55,231
1919	.....	.....
1920	1,926,332	39,437
1921	6,630,873	93,802
1922	17,944,667	242,688
1923	1,529,334	22,556

Soda, Benzoate of

	Pounds.	Dollars.
1914	190	97
1915	40,903	19,183
1916	35,188	100,195
1917	80,755	339,868
1918	1,569	4,742
1919	55,188	11,459
1920	67,397	10,478
1921	1,032	10,122
1922	11,369	3,001
1923	.....	.....

Soda, Bicarbonate of

	Pounds.	Dollars.
1871	18,998,399	421,177
1881	1,951,851	58,312
1891	758,612	15,611
1901	144,182	5,006
1913	80,699	2,238
1914	88,873	2,824
1915	93,318	2,584
1916	129,414	2,867
1917	34,742	1,821
1918	29,444	944
1919	12,665	711
1920	13,353	3,514
1921	5,900	417
1922	357,216	5,627
1923	47,415	1,470

Soda, Bichromate and Chromate of

	Pounds.	Dollars.
1901	54,105	2,781
1913	9	3
1914	11,056	586
1915	.....	.....
1916	6,154	3,630
1917	.....	.....
1918	27,127	5,259
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	86,608	6,794
1923	527	108

Soda, Chlorate of

	Pounds.	Dollars.
1891	385,972	51,502
1901	795,659	44,173
1913	50	10
1914	469	84
1915	62	6
1916	22,176	3,105
1917	33,600	1,080
1918	44,800	8,064
1919	10	2
1920	424,280	38,973
1921	365,611	26,397
1922	1,031,351	46,910
1923	1,612,958	64,104

Soda, Crystal Carbonate of

	Pounds.	Dollars.
1871	28,637,489	281,892
1881	.....	.....
1891	.....	.....
1901	611,961	5,663
1913	169,174	2,928
1914	307,488	3,323
1915	144,452	2,748
1916	49,231	889
1917	60,464	1,299
1918	70,116	2,028
1919	.....	.....
1920	203	16
1921	74,271	2,266
1922	16,042	623

Not stated after 1922.

Soda, Cyanide of

	Pounds.	Dollars.
1914	7,856,611	1,120,789
1915	6,187,418	955,907
1916	684,198	115,186
1917	1,875,824	861,777
1918	84,652	39,405
1919	138,970	13,406
1920	8,629,502	729,514
1921	7,733,063	1,074,434
1922	14,328,817	1,237,622
1923	25,454,043	2,130,464

Soda, Hydroxide, or Caustic

	Pounds.	Dollars.
1871	27,952,489	877,710
1881	49,465,385	1,168,277
1891	76,788,411	1,821,127
1901	3,749,633	75,954
1913	671,480	25,364
1914	665,320	23,914
1915	444,185	19,318
1916	225,189	20,981
1917	109,983	21,052
1918	16,976	9,591
1919	2	2
1920	117,322	14,842
1921	67,950	7,766
1922	1,548,020	70,559
1923	118,300	12,027

Soda, Hyposulphite of

	Pounds.	Dollars.
1901	5,222,369	50,639
1913	7,299	228
1914	926,135	128,828
1915	1,855,223	268,693
1916	5,125	166
1917	1,836	1,198
1918	6,960	6,723
1919	27,616	6,112
1920	11,014	7,904
1921	6,160	4,085
1922	1,717,653	32,617
1923	674,131	85,276

Soda, Nitrate of

	Tons.	Dollars.
1871	25,145	1,254,961
1881	49,171	2,356,167
1891	104,513	2,929,760
1901	197,518	5,656,442
1913	586,315	20,713,375
1914	554,048	17,926,165
1915	575,371	16,240,510
1916	1,072,833	32,129,926
1917	1,261,993	44,428,196
1918	1,608,569	70,077,674
1919	1,410,714	68,229,548
1920	907,141	40,314,969
1921	853,756	42,322,979
1922	303,271	14,067,668
1923	897,198	43,062,754

Soda, Nitrite of

	Pounds.	Dollars.
1901	90,125	4,642
1913	1,269,544	57,595
1914	1,844,379	76,813
1915	1,696,567	74,263
1916	2,593,330	170,160
1917	3,675,179	261,555
1918	2,755,033	226,294
1919	1,746,976	159,355
1920	8,897,758	978,676
1921	6,721,107	791,611
1922	1,372,768	70,813
1923	5,108,678	218,573

Soda, Phosphate of

	Pounds.	Dollars.
1901	377,834	7,178
1913	30	14
1914	1,364,789	24,975
1915	485,300	7,765
1916	1,066	79
1917	1,561	521
1918	112	69
1919	.....	.....
1920	56	22
1921	238,416	8,113
1922	1,968,739	57,345
1923	1,096,392	32,136

Soda, Prussiate of, Yellow

	Pounds.	Dollars.
1913	1,887,369	118,475
1914	2,295,724	171,834
1915	1,529,958	120,477
1916	527,130	136,250
1917	175,980	96,592
1918	.....	.....
1919	274,441	99,899
1920	2,633,090	445,849
1921	1,610,036	282,966
1922	3,832,491	473,065
1923	2,810,443	493,353

Soda, Sal, and Soda Crystals

	Pounds.	Dollars.
1871	28,637,489	281,892
1881	15,695,044	119,793
1891	28,548,379	252,051
1901	5,169,275	22,779
1913	128,027	1,010
1914	163,626	1,274
1915	104,800	606
1916	67,210	334
1917	50	4
1918	75	3
1919	44,800	1,156
1920	5,056	603
1921	45,360	1,390
1922	23,419	262
1923	12,500	1,752

Soda, Silicate of

	Pounds.	Dollars.
1871	384,882	7,325
1881	557,251	8,367
1891	535,030	6,429
1901	1,229,857	10,461
1913	1,032,113	9,400
1914	1,046,569	10,881
1915	1,587,902	16,292
1916	1,567,617	18,694
1917	1,203,844	18,493
1918	707,583	12,734
1919	673,777	16,647
1920	754,923	19,479
1921	1,069,468	32,033
1922	315,902	10,135
1923	1,050,735	23,187

Soda, Sulphid

	Pounds.	Dollars.
1913	951,664	13,068
1914	2,529,911	36,383
1915	1,263,366	18,228
1916	80,513	4,616
1917	344,617	7,214
1918	117,532	1,707
1919	314,887	10,494
1920	2,008,495	64,678
1921	741,965	40,440
1922	8,916,743	261,210
1923	16,502,750	449,388

Soda, Sulphite of

	Pounds.	Dollars.
1913	27,152	400
1914	382,540	5,627
1915	165,594	4,316
1916	435	60
1917	68,224	1,221
1918	20,206	223
1919	11,400	1,007
1920	68,239	3,119
1921	206,423	8,369
1922	2,585,868	73,357
1923	2,014,699	73,550

Sodium, Metal

	Pounds.	Dollars.
1920	5,600	684
1921	.....	.....
1922	418,997	64,978
1923	.....	.....

Sponges

		Dollars.
1871	.....	113,127
1881	.....	229,292
1891	.....	381,879
1901	.....	540,223
1912	.....	311,547
1913	.....	289,909

Stated separately after 1913.

Sponges, Not Advanced by Chemical Process

		Dollars.
1914	.....	279,211
1915	.....	334,252
1916	.....	454,626
1917	.....	593,253
1918	.....	510,374
1919	.....	475,817
1920	.....	607,440
1921	.....	459,231
1922	.....	563,092
1923	.....	787,896

Sponges, Bleached and Advanced by Chemical Process

		Dollars.
1914	.....	38,300
1915	.....	42,042
1916	.....	58,797
1917	.....	55,077
1918	.....	27,682
1919	.....	8,053
1920	.....	24,212
1921	.....	37,219
1922	.....	34,245
1923	.....	22,846

Starch, Potato

	Pounds.	Dollars.
1871	7,571	658
1881	35,896	2,124
1891	.....	.....
1901	.....	.....
1913	14,180,856	375,713
1914	13,934,741	233,661
1915	10,941,257	253,859
1916	2,237,717	72,736
1917	17,545,689	797,327
1918	13,195,079	902,499
1919	11,913,821	974,892
1920	9,017,574	547,672
1921	10,801,488	466,652
1922	7,156,786	319,174
1923	10,852,328	331,523

Starch, Soluble or Chemically Treated

	Pounds.	Dollars.
1913	321,071	13,345
1914	1,697,392	54,604
1915	569,297	21,559
1916	7,420	417
1917	44,788	3,244
1918	.....	.....
1919	1,223	143
1920	.....	.....
1921	143,153	10,492
1922	221,259	13,713
1923	364,247	16,633

Starch, All Other

	Pounds.	Dollars.
1871	25,078	1,896
1881	1,108,319	33,354
1891	3,743,219	86,694
1901	6,753,103	144,861
1913	677,785	40,645
1914	962,314	52,160
1915	952,984	52,537
1916	1,242,918	78,853
1917	888,345	62,132
1918	590,469	67,355
1919	224,938	35,537
1920	1,024,662	109,003
1921	474,700	54,871
1922	602,905	56,949
1923	337,446	27,412

Stearin, Vegetable, see "Candle Pitch, Etc."

Strontia, Oxide of

	Pounds.	Dollars.
1891	.....	63
1901	.....	1,755
1913	.....	474
1914	.....	1,969
1915	.....	7,268
1916	.....	8,311
1917	.....	21,184
1918	.....	6,873
1919	316,640	1,358
1920	1,050,347	6,230
1921	2,816,726	16,020
1922	.....	.....
1923	23,285	1,143

Strychnine and Salts and Derivatives

	Ounces.	Dollars.
1871	5	12
1881	99	122
1891	230	175
1901	4,731	1,932
1913	966,575	4,112,057
1914	846,905	3,753,879
1915	26,967	11,449
1916	59,278	37,652
1917	33,323	25,617
1918	9,638	9,726
1919	186	362
1920	18,448	32,901
1921	29,029	45,851
1922	106,902	133,271
1923	165,730	136,751

Sulphur Ore, as Pyrites or Sulphuret of Iron, Containing Not in Excess of 25 Per Cent. Sulphur

	Tons.	Dollars.
1891	19,605	77,694
1901	352,644	1,184,899
1913	532	377
1914	17,419	5,403
1915	26,967	11,449
1916	1,370,059	7,121,614
1917	935,749	5,855,913
1918	807,084	4,526,563
1919	370,272	2,018,447
1920	425,545	2,190,012
1921	263,633	1,209,238
1922	228,067	701,334
1923	326,833	1,744,432

Sulphur or Brimstone, Crude

	Tons.	Dollars.
1871	40,699	1,212,448
1881	113,190	2,713,485
1891	119,891	2,465,782
1901	159,710	2,875,115
1913	19,258	374,024
1914	20,236	346,875
1915	25,842	442,975
1916	22,539	372,599
1917	11,819	205,980
1918	282	8,677
1919	75	1,822
1920	51	1,896
1921	3	124
1922	2	141

See "Sulphur and Sulphur Ore" after 1922.

Sulphur Lac or Precipitated

	Pounds.	Dollars.
1881	.....	775
1891	35,535	2,395
1901	61,357	3,412
1913	715,876	13,723
1914	233,896	13,636
1915	208,568	13,187
1916	217,997	16,628
1917	69,145	7,009
1918	84,224	10,797
1919	39,548	5,897
1920	99,001	16,025
1921	49,306	13,259
1922	21,904	3,352

See "Sulphur and Sulphur Ore" after 1922.

Sulphur, Refined

	Tons.	Dollars.
1871	104	4,328
1881	80	2,555
1891	307	6,579
1901	154	4,115
1913	1,742	41,626
1914	1,523	39,634
1915	1,296	36,275
1916	850	26,778
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	50	2,512
1921	35	2,329
1922	.....	.....

See "Sulphur and Sulphur Ore" after 1922.

Sulphur, Sublimed, or Flowers of

	Tons.	Dollars.
1871	74	3,574
1881	110	4,226
1891	271	8,386
1901	740	20,392
1913	6,104	122,093
1914	599	15,841
1915	950	31,202
1916	200	7,512
1917	295	13,317
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	98	4,004

See "Sulphur and Sulphur Ore" after 1922.

Sulphur and Sulphur Ore

	Pounds.	Dollars.
1923	9,639,675	31,028

Sumac, Extract

	Gallons.	Dollars.
1891	239,890	77,152
1901	161,317	52,105
1913	1,270,825	44,568
1914	1,463,297	59,022
1915	727,449	35,066
1916	36,003	4,108
1917	161,507	13,944
1918	23,706	2,616
1919	.....	.....
1920	.....	.....
1921	44,049	3,273
1922	37,262	3,875
1923	158,221	14,406

Imports Into the United States

Sumac, Ground

	Pounds.	Dollars.
1891	11,412,307	235,729
1901	9,035,746	179,801
1913	14,112,112	289,255
1914	9,678,719	231,580
1915	12,048,917	294,434
1916	20,411,022	527,102
1917	10,877,008	337,404
1918	10,557,920	355,192
1919	4,128,309	145,286
1920	16,636,562	593,739
1921	2,245,615	62,786
1922	9,155,685	187,335
1923	12,771,493	322,487

Sumac, Unground

	Pounds.	Dollars.
1871	10,141,787	420,823
1881	13,667,892	409,400
1891	2,953,202	65,802
1901	1,482,822	26,138
1913	621,366	12,420
1914	1,335,566	32,238
1915	1,258,204	32,613
1916	1,131,369	28,164
1917	760,015	27,769
1918	3,619,439	141,063
1919	5,182,736	162,557
1920	4,543,852	161,497
1921	481,491	11,236
1922	3,461,640	81,175
1923	3,991,529	111,079

Talcum, Steatite and French Chalk, Crude.

	Pounds.	Dollars.
1871	162,982	3,905
1881	.....	.....
1891	.....	.....
1901	.....	.....
1914	2,807,974	23,369
1915	3,478,711	15,322
1916	4,681,165	9,703
1917	3,736,899	11,477
1918	4,721,980	10,528
1919	2,804,000	10,324
1920	2,958,582	10,254
1921	844,150	3,026
1922	420,075	5,845
1923	833,223	15,005

Talcum, Ground, Etc.

	Pounds.	Dollars.
1871	.....	496
1881	.....	18,735
1891	.....	.....
1901	1,138,358	7,574
1913	23,660,095	122,623
1914	32,498,066	173,023
1915	30,434,850	187,871
1916	33,738,067	207,179
1917	34,288,429	238,479
1918	27,550,409	267,265
1919	23,090,219	207,534
1920	36,579,129	365,912
1921	30,653,746	318,058
1922	33,491,507	336,514
1923	39,031,023	396,227

Tallow.

	Pounds.	Dollars.
1871	69,244	4,606
1881	65,044	4,318
1891	77,557	3,278
1901	84,449	5,108
1913	490,505	41,710
1914	3,371,833	231,924
1915	12,634,594	823,958
1916	4,779,076	396,787
1917	31,136,527	3,108,274
1918	98,176,560	14,365,676
1919	10,808,742	1,408,007
1920	11,251,437	1,665,799
1921	11,762,499	1,338,362
1922	1,405,820	79,702
1923	10,743,853	814,526

Tanks, or Vessels, Cylindrical or Tubular, for Holding Gas, Liquids, or Other Material.

	Number.	Dollars.
1914	.....	459,842
1915	.....	226,911
1916	.....	242,773
1917	.....	234,217
1918	.....	153,716
1919	.....	151,640
1920	.....	385,300
1921	.....	441,371
1922	.....	174,842
1923	.....	315,267

Tanning Materials, Crude, Not Stated Elsewhere.

	Pounds.	Dollars.
1881	.....	560
1891	.....	2,603
1901	.....	46,739
1914	.....	81,595
1915	.....	64,995
1916	.....	270,292
1917	.....	365,596
1918	.....	95,446
1919	13,227,193	332,898
1920	49,008,222	1,692,589
1921	25,764,287	657,162
1922	9,214,918	136,184
1923	6,638,550	94,291

Tapioca, Tapioca Flour, Cassava or Cassady.

	Pounds.	Dollars.
1871	.....	62,110
1881	4,857,434	187,983
1891	8,147,585	243,885
1901	17,411,046	430,002
1914	71,304,728	1,599,614
1915	60,080,060	1,324,184
1916	64,838,470	1,992,399
1917	100,517,107	3,506,479
1918	92,351,460	4,734,860
1919	53,379,896	2,618,121
1920	119,746,319	6,848,677
1921	56,975,926	2,757,298
1922	72,224,281	1,956,308
1923	86,364,169	3,257,366

Tar, Coal, Crude, and Pitch of.

	Barrels.	Dollars.
1891	89,351	236,450
1901	39,062	104,547
1913	14,093	23,691
1914	17,515	25,140
1915	16,391	23,874
1916	19,206	32,635
1917	5,594	10,702

Stated separately after Sept. 8, 1916.

Tar, Coal, Crude.

	Barrels.	Dollars.
1891	3,887	11,644
1901	.....	.....
1917	5,864	10,381
1918	10,031	15,603
1919	25,400	42,270
1920	14,439	28,882
1921	29,694	43,318
1922	29 072	57,286
1923	11,881	35,942

Tar, Coal, Pitch Of.

	Barrels.	Dollars.
1891	.....	15,499
1901	.....	.....
1917	7,258	8,146
1918	15,838	32,582
1919	3,293	7,093
1920	6,168	15,425
1921	6,271	20,060
1922	24	153
1923	1,565	5,501

Tar and Pitch of Wood.

	Barrels (280 lbs.)	Dollars.
1871	.....	5,033
1881	.....	7,769
1891	4,319	13,411
1901	1,797	10,414
1914	561	7,946
1915	129	1,551
1916	31	282
1917	631	5,903
1918	51	214
1919	132	215
1920	287	1,860
1921	712	3,677
1922	166	2,225
1923	434	6,754

Tartrate of Soda and Potassa, or Rochelle Salts.

	Pounds.	Dollars.
1871	100	27
1881	33	9
1891	547	100
1901	272	33
1914	186,305	23,419
1915	253,609	19,244
1916	187	47
1917	17,840	4,352
1918	31,160	8,614
1919	6,742	2,966
1920	69,440	17,580
1921	246,698	48,614
1922	472,626	67,496
1923	327,778	48,918

Tea, Impure, Waste, Siftings or Sweepings, for Manufacturing Purpose.

	Pounds.	Dollars.
1901	.....	25,802
1914	5,213,956	178,302
1915	4,739,208	153,360
1916	4,796,766	201,507
1917	7,626,688	478,326
1918	10,887,596	782,473
1919	4,860,200	371,975
1920	11,076,802	617,592
1921	12,522,860	738,594
1922	2,823,585	120,887
1923	2,805,135	102,082

Terpin Hydrate.

	Pounds.	Dollars.
1914	6,929	1,020
1915	4,477	657
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	.....	.....
1921	.....	.....
1922	.....	.....
1923	443	214

Terra Alba, All Kinds

	Pounds.	Dollars.
1871	.....	133,028
1881	.....	39,983
1891	20,762,212	50,128

Terra Alba, Not Made from Gypsum or Plaster Rock

	Pounds.	Dollars.
1920	85,200	874
1921	11,200	133
1922	135,600	1,226

Not stated after 1922.

Thorium, Nitrate of.

	Pounds.	Dollars.
1901	12,986	41,663
1913	112,105	212,263
1914	144,413	309,260
1915	78,516	186,385
1916	22,261	63,496
1917	1,877	5,263
1918	.....	.....
1919	.....	.....
1920	15,409	17,503
1921	59,903	105,788
1922	14,745	27,196
1923	34,192	38,840

Thorium, Oxide and Other Salts of.

	Pounds.	Dollars.
1914	2,465	4,075
1915	82	359
1916	2,612	6,092
1917	1,616	3,984
1918	.....	.....
1919	28	124
1920	.....	.....
1921	.....	.....
1922	7,830	12,329
1923	8,953	9,765

Thymol.

	Pounds.	Dollars.
1914	19,045	24,765
1915	4,772	12,921
1916	443	1,973
1917	1,759	13,741
1918	34,978	113,279
1919	8,430	75,013
1920	8,948	56,764
1921	9,593	63,326
1922	8,305	30,740
1923	8,148	22,738

Tin, Bichloride and Other Chemical Compounds

	Pounds.	Dollars.
1923	2,451,917	99-402

Tin, Black Oxide of, or Cassiterite.

	Pounds.	Dollars.
1871	.....	3,061
1881	.....	2,510
1891	224	7
1901	2,200	640
1913	82,983	18,536
1914	19,549	3,022
1915	49,068	10,798
1916	40,533	8,134
1917	54,367	12,816
1918	29,014	8,914
1919	.....	.....
1920	*14	6,924
1921	35	16,025
1922	104	31,378
1923	5,331	2,868,253

*Quantity stated in tons after 1919.

MARX & RAWOLLE, Inc.

Established 1849

Certificate of Award International Exhibition 1876

Glycerine - Shellac - Lacquer and Varnishes

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Phone Beekman 5040

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CHICAGO
Phone Monroe 1491

CABLE ADDRESS, "RAWOLLE, NEW YORK"

Imports Into the United States

Tin Foil.

		Dollars.
1871	.....	29,422
1881	.....	33,456
1891	.....	31,880
1901	.....	48,829
1913	.....	430
1914	.....	649
1915	.....	1,216
1916	.....	1,506
1917	.....	2,283
1918	.....	212
1919	.....	84
1920	.....	465
1921	.....	9,371
1922	.....	3,027
1923	.....	2,961

Titanium and Ferrotitanium

	Pounds.	Dollars.
1921	2,315	1,030
1922	13,686	3,334
1923	16,748	3,509

Toluolenediamine

	Pounds.	Dollars.
1921	175	238
1922	.....	.....
1923	.....	.....

Tonka Beans.

	Pounds.	Dollars.
1871	.....	19,694
1881	.....	80,636
1891	.....	312,537
1901	.....	19,821
1913	783,888	1,140,409
1914	545,156	677,195
1915	132,119	95,222
1916	143,321	94,700
1917	222,754	156,974
1918	405,429	204,260
1919	85,487	46,591
1920	266,090	255,497
1921	139,649	106,481
1922	149,777	111,284
1923	634,025	209,467

Turmeric.

	Pounds.	Dollars.
1901	.....	43,874
1913	.....	33,735
1914	.....	22,978
1915	.....	10,145
1916	.....	180,948
1917	.....	112,372
1918	.....	602
1919	689,962	46,205
1920	1,312,539	92,413
1921	737,736	37,136
1922	766,461	26,824
1923	798,032	36,014

Turpentine, Spirits of.

	Gallons.	Dollars.
1871	128	116
1881	.....	.....
1891	2,900	1,219
1901	12,697	4,486
1913	56,457	19,295
1914	72,679	28,818
1915	13,680	6,095
1916	20,675	8,252
1917	18,286	6,271
1918	1,433	564
1919	1,422	724
1920	28,506	37,555
1921	16,049	15,121
1922	70,467	45,184
1923	145,148	144,114

Turpentine, Venice.

	Pounds.	Dollars.
1871	.....	2,980
1881	56,732	8,104
1891	70,185	8,138
1901	191,026	14,789
1913	60,678	9,169
1914	112,010	17,434
1915	20,904	3,172
1916	7,901	772
1917	1,045	248
1918	.....	.....
1919	.....	.....
1920	5,283	2,540
1921	10,914	2,626
1922	4,972	1,027
1923	32,946	4,526

Ultramarine, Dry, in Pulp or Mixed With Oil or Water.

	Pounds.	Dollars.
1871	.....	115,816
1881	913,935	127,352
1891	134,352	11,404
1901	319,903	37,790
1913	695,938	62,250
1914	901,203	78,392
1915	641,381	62,715
1916	401,605	44,709
1917	388,201	36,433
1918	359,136	35,210
1919	197,573	25,861
1920	438,443	41,136
1921	898,739	104,263
1922	688,282	69,509
1923	317,708	48,485

Umber and Umber Earths.

	Pounds.	Dollars.
1871	470,392	7,064
1881	1,475,835	11,126
1891	1,586,840	17,150
1901	1,798,789	13,689
1914	3,381,919	25,798
1915	7,225,537	36,128
1916	8,914,389	55,076
1917	9,211,112	66,217
1918	665,196	18,850
1919	425,017	11,776
1920	5,007,345	47,205
1921	7,124,483	77,526
1922	2,666,867	39,155
1923	9,168,941	80,580

Uranium, Oxide and Salts of.

	Pounds.	Dollars.
1891	.....	1,974
1901	.....	15,573
1913	.....	21,435
1914	.....	5,782
1915	.....	1,969
1916	.....	2,099
1917	.....	3,018
1918	.....	.....
1919	1,154	1,309
1920	.....	.....
1921	441	468
1922	6,894	5,487
1923	1,285	2,225

Urea.

	Pounds.	Dollars.
1914	17,981	8,798
1915	65,464	31,994
1916	79,172	32,498
1917	56,429	36,248
1918	22,777	17,479
1919	11,576	7,693
1920	18,693	10,784
1921	7,714	5,349
1922	136,161	34,953
1923	195,208	40,275

Valerian Root.

	Pounds.	Dollars.
1919	54,847	34,450
1920	184,195	64,863
1921	23,084	4,624
1922	29,041	2,616
1923	75,867	7,314

Valonia.

	Pounds.	Dollars.
1913	5,295,762	79,610
1914	7,654,056	116,406
1915	6,352,190	88,061
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	150	5
1920	16,636,249	651,984
1921	11,723,598	331,443
1922	23,643,552	444,490
1923	15,070,543	298,704

Valonia and Myrabolans Extract for Tanning, Not Containing Alcohol.

	Pounds.	Dollars.
1919	2,037,349	40,202
1920	2,058,075	59,765
1921	967,892	26,218
1922	1,663,783	35,654
1923	247,951	14,315

Vanilla Beans.

	Pounds.	Dollars.
1871	14,764	113,212
1881	37,214	206,030
1891	171,024	594,949
1901	248,994	875,229
1913	1,049,617	2,641,574
1914	694,531	1,739,674
1915	749,146	1,880,995
1916	796,890	1,474,228
1917	733,595	1,583,325
1918	759,096	1,202,413
1919	1,003,072	1,687,305
1920	1,055,670	2,181,210
1921	977,004	1,811,396
1922	1,186,932	2,024,474
1923	1,244,107	2,830,300

Vanillin.

	Ounces.	Dollars.
1901	5,513	2,475
1914	33,668	6,446
1915	451	98
1916	.....	.....
1917	.....	.....
1918	.....	.....
1919	.....	.....
1920	71	94
1921	36,178	22,530
1922	10,510	4,240
1923	3,514	1,448

Varnish, Gold Size, or Japan.

	Gallons.	Dollars.
1871	.....	252
1881	.....	2,789
1891	.....	1,618
•1901	.....	.....
1914	.....	8,706
1915	.....	10,228
1916	.....	423
1917	.....	2,504
1918	.....	1,217
1919	2,005	8,192
1920	930	2,183
1921	1,019	4,458
1922	2,733	7,620

• Included in "Varnish, All Other," after 1922.

Varnish, Spirit.

	Gallons.	Dollars.
1891	2,472	7,456
1901	2,603	4,774
1914	10,127	24,329
1915	581	1,937
1916	1,318	6,874
1917	2,771	13,425
1918	1,286	3,033
1919	37	676
1920	782	3,531
1921	707	2,786
1922	2,985	12,431
1923	2,198	8,065

Varnish, All Other.

	Gallons.	Dollars.
1871	23,862	72,266
1881	86,814	140,651
1891	32,600	91,111
1901	43,007	114,985
1914	16,888	31,032
1915	27,943	51,791
1916	25,542	62,776
1917	20,366	47,740
1918	10,923	24,345
1919	4,256	14,370
1920	24,271	78,507
1921	17,383	65,292
1922	22,758	76,686
1923	29,118	116,509

Venetian Red.

	Pounds.	Dollars.
1891	.....	19,138
1901	4,517,458	26,492
1914	3,858,611	35,077
1915	2,478,959	20,677
1916	1,687,616	12,947
1917	835,161	8,296
1918	433,638	5,135
1919	275,800	3,627
1920	278,673	4,524
1921	393,722	7,968
1922	72,519	2,246

Not stated after 1922.

Verdigris or Acetate and Sub-Acetate of Copper.

	Pounds.	Dollars.
1871	331,657	56,873
1881	160,745	35,163
1891	212,019	32,016
1901	44,439	6,211
1914	19,009	2,530
1915	17,569	2,491
1916	81,005	15,648
1917	50,216	13,052
1918	26,837	8,694
1919	34,280	13,911
1920	8,309	2,122
1921	27,607	5,760
1922	19,569	3,478
1923	26,278	4,727

Vermilion Reds.

	Pounds.	Dollars.
1871	79,195	43,935
1881	14,243	7,392
1891	35,381	18,632
1901	110,961	27,958
1914	72,881	34,379
1915	95,659	58,697
1916	71,515	92,990
1917	17,557	24,170
1918	7,620	10,116
1919	9,556	17,439
1920	35,670	43,948
1921	22,203	22,868
1922	1,362	927
1923	48,783	39,284

Wash Blue Containing Ultramarine.

	Pounds.	Dollars.
1891	166,327	23,407
1901	454,032	60,279
1914	.....	12,906
1915	.....	6,485
1916	.....	4,907
1917	.....	25,280
1918	.....	15,686
1919	53,706	11,261
1920	134,812	22,955
1921	83,437	17,206
1922	50,835	7,266

Included in "Ultramarine, etc.," after 1922.

Wax, Mineral or Vegetable

	Pounds.	Dollars.
1881	98,911	12,792
1891	1,486,125	127,159
1901	4,944,891	490,775

Stated separately for later years.

Wax, Mineral.

	Pounds.	Dollars.
1914	7,974,157	537,684
1915	6,284,757	401,500
1916	2,081,083	141,539
1917	2,054,722	150,241
1918	1,708,514	135,920
1919	2,680,155	313,371
1920	2,717,300	423,468
1921	4,757,396	433,076
1922	10,811,967	524,519
1923	7,974,398	334,741

Wax, Vegetable.

	Pounds.	Dollars.
1914	4,330,276	1,043,337
1915	5,388,398	999,535
1916	9,594,111	1,551,996
1917	7,210,103	1,742,640
1918	8,636,881	2,670,022
1919	8,331,475	3,012,783
1920	9,949,567	3,681,707
1921	6,235,416	1,600,074
1922	7,242,520	1,012,731
1923	9,474,406	1,510,846

White Lead.

	Pounds.	Dollars.
1871	8,337,842	483,392
1881	1,068,031	60,133
1891	628,414	43,041
1901	379,388	21,993
1914	656,884	44,436
1915	514,876	35,743
1916	153,474	11,970
1917	57,045	5,054
1918	887	239
1919	21,153	2,477
1920	33,472	4,724
1921	225,930	24,690
1922	118,119	11,908
1923	324,776	30,563

Whiting and Paris White, Dry.

	Pounds.	Dollars
1871	5,219,396	24,710
1881	1,974,913	7,806
1891	1,042,515	4,239
1901	507,745	1,863
1914	2,361,605	10,453
1915	5,387,038	15,705
1916	3,655,123	14,459
1917	2,147,895	11,292
1918	4,908,295	31,033
1919	586,780	5,097
1920	3,639,237	28,610
1921	20,393,338	191,558
1922	22,391,035	114,784
1923	40,446,737	149,636

Witherite, or Natural Barium Carbonate

	Pounds.	Dollars
1891	.....	13,008
1901	.....	15,208
1914	1,223,926	7,927
1915	858,292	6,674
1916	1,714,414	20,446
1917	1,420,752	16,071
1918	1,194,268	20,146
1919	46,468	2,555
1920	1,195,824	22,465
1921	2,516,289	53,748
1922	2,092,290	41,589
1923	2,204,016	24,609

Wood Flour.

	Pounds.	Dollars.
1914	15,171,972	84,751
1915	11,482,934	60,131
1916	13,731,979	74,479
1917	8,703,664	57,521
1918	3,738,486	43,852
1919	840,000	9,559
1920	2,922,063	41,355
1921	9,442,617	196,176
1922	14,481,469	88,513
1923	10,743,482	70,666

Xylidine

	Pounds.	Dollars.
1920	56,047	41,237
1921	.....	.....
1922	.....	.....
1923	150	60

Zaffer

	Pounds.	Dollars.
1920	220	14
1921	.....	.....
1922	.....	.....
1923	.....	.....

Zinc Bearing Ores, Includes Calamine for Smelting or Refining in Bonded Works for Export

	Zinc contents, pounds.	Dollars.
1913	25,214,528	526,173
1914	11,762,861	169,986
1915	14,259,176	321,135
1916	81,779,564	3,376,166
1917	293,958,919	8,186,015
1918	31,822,890	580,758
1919	63,636,426	1,347,067
1920	18,965,938	310,515
1921	41,628,246	587,128
1922	38,304,275	653,343
1923	3,904,965	38,610

Zinc, Ashes of

	Pounds.	Dollars.
1871	2,075,899	103,493
1881	2,044,778	106,990

Not stated after 1881.

Zinc, Chloride of.

	Pounds.	Dollars
1901	898,205	28,192
1913	1,252,319	37,078
1914	789,296	23,503
1915	194,250	5,805
1916	12,643	463
1917	6,216	629
1918	197,570	15,381
1919	.....	.....
1920	80,228	7,762
1921	4,054,862	235,274
1922	3,290,928	104,553
1923	1,761,272	65,580

Zinc Dust.

	Pounds.	Dollars.
1913	5,615,766	317,492
1914	4,788,433	223,775
1915	2,278,533	132,822
1916	1,365,705	255,192
1917	522,587	83,613
1918	263,428	25,109
1919	24,982	1,637
1920	98,921	8,036
1921	13,023	2,287
1922	202,066	5,470
1923	46,224	1,977

Zinc Oxide, Dry.

	Pounds.	Dollars.
1912	4,842,948	310,362
1913	6,148,129	389,485
•1914	1,408,162	88,410

• Figures are for July 1 to October 3, 1913.
Stated separately after October 3, 1913.

Zinc, Oxide of, Ground, Dry.

	Pounds.	Dollars.
1891	2,629,858	136,364
1901	2,831,620	145,823
1914	5,315,867	309,106
1915	2,565,434	148,143
1916	1,441,299	244,934
1917	285,433	65,633
1918	294,736	55,302
1919	132,486	30,346
1920	1,549,644	174,658
1921	1,886,076	171,328
1922	5,521,525	352,018
1923	3,210,097	229,115

Zinc, Oxide of, Ground in or Mixed with Oil or Water.

	Pounds.	Dollars.
1891	139,371	7,226
1901	53,851	4,182
1914	292,571	21,595
1915	156,451	11,525
1916	66,347	7,187
1917	14,089	1,225
1918	273	57
1919	7,088	1,059
1920	13,571	2,358
1921	89,641	11,009
1922	74,219	11,857
1923	120,674	15,205

Zinc Sulphate.

	Pounds.	Dollars.
1881	12,898	294
1891	.....	.....
1901	32,812	752
1913	23,778	817
1914	107,065	2,176
1915	68,940	1,027
1916	.....	.....
1917	28	44
1918	21	35
1919	221	113
1920	10	19
1921	100,829	3,314
1922	55,679	1,050
1923	28,413	1,771

Zinc, Sulphide of, White.

	Pounds.	Dollars.
1901	1,595,236	47,697
1913	5,163,942	144,812
1914	1,338,999	42,130
1915	283,356	8,979
1916	96,402	7,368
1917	53,587	8,451
1918	7,098	4,535
1919	5,703	1,837
1920	15,271	5,475
1921	69,135	16,915
1922	73,334	5,977
1923	24,036	9,374

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Industrial Chemicals: Market Review

The year 1923 saw the final adjustment of the American chemical industry to post-war conditions. Many and vast changes in marketing, production, importantion and exportation were effected during those twelve months. The market was sifted thoroughly; desirable and undesirable elements were taken into consideration, and those which were unfavorable to progress and success were permanently discarded. The European crisis acted as a great stimulant on American production; it showed conclusively the futility of depending in even one little item on the foreign sources of supply which, prior to the war, had taken care almost entirely of certain of the industrial chemicals extensively used in industrial operations in this country. The occupation of the Ruhr district of Germany by the French army has passed into history, and the lesson learned by the American chemical industry from that momentous event has been perfectly assimilated. Nevertheless, the lack of initiative and the faint-heartedness which characterized the actions of the principal chemical manufacturers shortly after the end of the war were still prominent traits and not so easily eradicated as might have been expected, when every sort of advantage was given these manufacturers to go ahead and make a colossal thing of the American chemical industry. To this lack of initiative must be laid the failure to extend the exportation of chemicals to their logical and reasonable limits. In only a few items has there been conspicuous succees attending the effort to broaden the foreign markets. The extension of the foreign field in soda ash and caustic has been the result of hard work, intelligent planning and skillful propaganda.

All the industrial activities of the country showed a marked improvement in the fall of 1922. The optimistic feeling engendered then was carried over into the first of 1923. Consumers of the more important alkalies and of bleaching powder and chlorine placed contracts in unprecedented volume. The capacities of chlorine makers were tested beyond their limits, so great was demand for this bleach. The extension of the use of the liquid chlorine in recent years has been rapid and far-reaching. In many places it has completely ousted the more cumbersome powder. Production facilities were extended to meet the new requirements.

The first couple of weeks of the year showed very little change in conditions, generally speaking. Demand was restricted aside from contract withdrawals, which were well up to the average for the time of year. But the rest of the list displayed little distinction. Trading was thoroughly routine. Industry had hardly recovered from the inventory period; in fact, some were still in the midst of it. The usual spring developments were still out of sight, consumers not caring to precipitate themselves into buying, with the possibility of conditions changing shortly to a more favorable (to them) direction.

Domestic Interest Improved

However, by the middle of January it was apparent that a different sentiment had begun to be felt. The export situation was still bad, and there was not much attempt made to remedy it. No definite course of action was taken by any of the exporters toward increasing interest in domestic chemicals, new markets were not being sought out. In short, the attitude was altogether "if you want it, come to us." Inasmuch as American chemicals, with all due respect to their quality, which is excellent, are not as widely known as the German brand, this attitude was certainly a losing one. But domestic interest in chemicals was better. Inquiries broadened and buying began gradually to assume a seasonable character. At this time the occupation of the Ruhr district by the French had begun to have a decidedly bad effect on shipments of German chemicals to this country. Shipments were demoralized, and it was impossible to be definite as to when goods would arrive. The spot market, which had previously been liberally supplied with these German chemicals, was much less so. As stocks were reduced or obliterated, replacements were not forthcoming, or, if they were, came forward so irregularly that no dependence could be placed on them by dealers or consumers. Now, if a consumer wants supplies at a certain time he expects to get them; if they are delayed to any extent, his operations may be permanently injured or seriously delayed. The irregularity of shipments caused much bad feeling, and attention was shifted to domestic manufacturers.

Then it was found that domestic production of caustic potash was practically nil, that absolutely no carbonate was manufactured in America, that chlorates were difficult to obtain and very dear. Makers of these chemicals who had been practically forced from the market on account of the low prices at which the imported materials sold were induced to turn attention to production again, and, while the results at first were not good, by the end of the year there had been considerable progress made in extending manufacturing. Costs had been more or less solved, enabling domestic producers to compete with importers.

Buying of chemicals throughout February was better than during January, but could not be called heavy. The market adhered to more or less routine lines and, confined within such limits, there was little of the sensational displayed. The upward trend of prices in foreign chemicals was the most interesting development and caused much speculation. Despite the limited nature of purchases, the advances in replacement costs inevitably forced up the spot market. These conditions, gradually intensifying, continued throughout the better part of March.

An enormous foreign demand for copper resulted in extreme advances in the prices of the metal. The advances in turn affected prices of a number of derivatives, blue vitriol, copper oxide and carbonate. Tin also was higher during March and a number of derivatives were affected. Lead was less strong than some of the other metals, but was sufficiently high to result in an advance in the acetate.

Costs Became Bullish Factor

There had been only a moderate improvement in demand by the beginning of April. That applies to the spot market. Contract withdrawals of soda ash and caustic were large all along, and the volume of shipments during 1923 was in excess of anything previous in the history of the industry. The advances in metals, coal and other important materials entering into production of chemicals had an inevitable effect on selling prices. Makers were forced to cover the advance in manufacturing costs by asking more for the finished materials, and in many of the domestic made items higher selling levels were established. Meantime, the imported list had also been advancing, due to the continuation of the unsettled conditions abroad, export taxes applied in Germany and various other reasons. Shipments were demoralized. It was impossible to ascertain when goods would arrive. Orders were delayed several months in some instances. The untimely or belated arrival of these goods had a depressing effect on the spot market, and prices were unsettled. An importer would get a shipment a month or six weeks too late, and be forced to sacrifice it in order to move it. Consumers would not consider goods that arrived so long after they wanted them. The spot market at times was almost a buyers' market in respect to these imported chemicals.

Acetate of lime was advanced in April. The advance amounted to 50c. and a long line of derivatives were immediately affected to a like extent. In metals, less firmness was observed. Buying had fallen off and by the end of May prices had declined to more normal levels, bringing about lower prices for copper sulphate and tin salts. The advance in acetic acid which followed the higher price of acetate of lime prevented any change in acetate of lead, as the acid is an important factor in the composition of the acetate.

Conditions during May and June were little changed from those prevailing in April. There was no increase in the volume of buying. On the contrary there was a tendency in buying quarters to restrict purchases to as small extent as possible. This hand-to-mouth buying thoroughly exasperated the sellers. Formerly orders were for 25 or 50 tons of material; now they were for 5 or 10 tons. And the consumers took just about as much in the long run, but bought in driblets all the time.

July and August are the dullest months of the year in chemicals. It is then that industrial activities are at the low ebb and raw materials consequently in lightest demand. There were a few interesting developments in prices during this period, particularly in bleaching powder. It is impossible to store this material successfully, as the moisture will ruin the chlorine content. Stocks had accumulated to the extent of a million pounds or so. One of the prominent producers slashed prices viciously in an endeavor to get rid of this surplus, which was deteriorating in quality all the time, and had to be moved mighty quickly if it was going to pass muster. Textile mills and paper mills were not operating much and consequently there was less outlet for the supplies. This competition began in July to assume serious proportions, and before August was out prices had been cut close to the production point, so that the usual holler of selling at a loss was heard through the land.

Alkali Export Expanded

The export movement in alkalies was resumed in September. The English and Japanese interests offered Americans much competition, and practically got all of the Eastern markets away for a time. But inability to keep up production allowed Americans later to get a foothold, which has been maintained ever since through propaganda and real go-ahead initiative. Metals were down and the prices of tin salts and blue vitriol were proportionately lower.

The market continued to expand until the first of December. Prices were stronger on the whole than they had been in the spring. Domestic production had been accelerated in many directions. Caustic potash was available and the chlorates were to be had in large volume. The first domestic permanganate of potash was marketed, the price comparing with what was asked for imported. At the end of the year the market subsided into a more quiet state, but values were generally maintained and conditions excellent.

Domestic producers of alum suffered from importation of German alums during 1923. The low prices at which much of these imported goods sold made consumers of small quantities buy from the importers and dealers rather than from domestic factors on account of the cheapness of the foreign. Potash alum, particularly, was extremely cheap and caused the domestic to be almost forced from the Eastern market. The potash lump held around 2¾c. to 3c. per pound for the year; while domestic producers maintained the ammonia lump at 3½c. Imported ammonia lump was about ¼c. less.

Ammonia water was another material in which competition from imported material resulted in domestic producers losing a great deal of small lot business. However, towards the end of the year replacement costs of foreign were so high that little was imported. The price of 26 degree did not vary much during the year, from 6¾c. to 7c. per pound prevailing.

Little of the lump sal ammoniac is produced in this country. Consumers are dependent more or less on the imported article. The English grades are considered superior to the German, and command a higher price. Prices of English were from 15c. to 16c. per pound, although a dull period in the summer resulted in 13c. being established, and competition from German later on prevented any change.

The market displayed a fairly steady upward trend in the matter of antimony products. The needle powdered sold in January at 5c. per pound, but the position of metal resulted in 8c. being quoted at the beginning of April. Later on, during the dull summer, the price was established at 5½c. That did not last long, however, as shortage of metal resulted in factors asking 7½c. in December.

There was considerable speculation in white arsenic early in the year. There were all sorts of dire predictions as to the insufficiency of the production to satisfy the necessities of the consuming trades. The enormous increase in the use of calcium arsenate in recent years has more than tripled the use of the arsenic. It was pointed out last year that the world's production was not enough to suffice for the American consumption alone. Not a great deal was available from domestic sources, and Japanese and German sources were tapped. The market was 16c. per pound during January and February. The advent of the spring did not see values sustained, as there had been too much speculation in the first months of the year, and the top prices were reached then. Many of the dealers lost money through forced sales, and the price broke to 11c. in July. During August sales at 9¾c. were frequent, but towards the close of the year a little more firmness developed, and interest in forward shipments helped to advance the price to 14½c.

Bleach Cut Sensationally

The price of bleaching powder declined $1 in 1923. In January the price was $2.25 per 100 pounds; in December it was $1.25. The cut in the price was the result of the competition between the producers and an overproduction. It is impossible to store this material successfully, and the accumulation of supplies brought about the first cut in July. This did not move goods to any appreciable extent and further cuts were made. Then, in the fall, makers went out after new business and the war was on in earnest. It was claimed that $1.50 was as low as the bleach could be sold and the cost of production be covered. The price was cut to $1.25 before a truce was called. Contracts for 1924 were taken in November and December at that price, and prompt shipments were also to be had at that attractive price.

Liquid chlorine was naturally affected throughout the year by the price of bleaching powder, but the cuts were not so drastic. The price fluctuated only fractionally around 5c. to 5¾c. per pound.

Blue vitriol declined steadily throughout the year. The highest prices were in March, when copper was at the high of the year. Vitriol was then $6.50 per 100 pounds. The continual decline of copper, and the gradually slowing up of demand for vitriol combined to bring the price down to $5 in September. By December, $4.65 was the price. There was considerable export business during the first part of the year. Domestic producers had to compete with imported material, but the season was not one of the best, and imported material caused less trouble than had been anticipated. In too many instances it was not of sufficient quality to attract consumers. It could not be used for certain things, particularly spraying. Most of the export business was with Europe and South America.

During the first part of the year there was no domestic caustic potash. In 1922 there had been such heavy importations of German caustic and the prices were so low that domestic production was discouraged. It was only until well into 1923 that production was resumed. The price at which domestic producers had to sell in order to cover their costs was higher than imported could be secured at. Nevertheless, there was fair buying of the domestic on account of the excellent quality. Imported, 88@92 percent, sold at 7c. per pound in January, and was about 1c. higher during April and May. This was the peak. The reason for the higher prices was due to the position of the Ruhr, which had been taken over by the French. The exportation of chemicals from Germany was seriously interrupted by these political disturbances. Prices advanced, and it became impossible to depend on shipments. Of course, as summer approached and demand for chemicals slackened, some of the strength was removed from the market here. The uncertainty with which goods came to hand also affected the trend, as there were frequent forced sales, and these had to be at lower prices than the market, also they would have failed in their object. By November and December shipments had been resumed in more regular fashion, and prices were back to 6¼c.

The production of permanganate of potash in this country was resumed in the midsummer. The price at which it was put on the market was sufficiently low to intimidate importers. Although shipments were large after the marketing of domestic material, importers were unable to sustain values and the spot more often than not was considerably under the shipment costs. The Ruhr occupation had a strengthening influence on the market during March and April. In two months the prices advanced from 17½c. to 25c. per pound. This was before the domestic was available. Domestic was first marketed around 17c. per pound. But that did not prevent the imported material from declining to 16½c. Later on there was a slight recovery, and the price was 17c. during the last quarter of the year.

Soda Market Satisfactory

The situation in caustic soda and the ash were unusually satisfactory during the year. There was little of feature in either item, but demand was along unusually heavy lines, and it was one of the most prosperous years in the history of the industry. The 58 percent light ash was $1.75 per 100 pounds from January to August, when it was reduced to $1.48. The system of quoting prices was then changed. Formerly it had been the custom to quote light ash on the basis of 48 percent sodium oxide content. This method of quoting was changed, and producers began to quote on a straight oxide content basis of 58 percent, which simplified matters greatly. Caustic soda was maintained at $3.26 throughout the year, the change in price being effected in August when $3.20 was quoted. The export sales of caustic during the year were large. More was shipped in the fall than in the spring, that being the result of the campaign instituted by the Alkali Export Association to broaden the foreign markets.

Imports of nitrite of soda during the year amounted to 4,685,501 pounds, valued at $209,026. In 1922 imports were 1,461,528 pounds, and the value was $58,302. Domestic production has been insufficient for years. Before the war none was made in this country. During the war some plants were started, but have never been operated efficiently. It has been claimed that costs were so great as to make it impossible to compete with imported, and it was agitated during the year to have the tariff advanced. In view of the absolute need of the dye industry for this chemical, it seems more reasonable to let the users secure it at a cheap enough price to make their operations possible. The price during the year did not vary much. The range was from 7¼c. to 8¼c. per pound.

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Acids During the Year

The production of mineral acids in 1923 was not as heavy as it had been the two previous years, and the result was that the prices of sulphuric, muriatic and nitric were more stable than they had been for some years. At the beginning of the year there had been considerable liquidation of sulphuric. Large stocks had been acquired by certain manufacturers of fertilizers. Nineteen twenty-two was a bad year for that industry, and there were quantities of raw materials left over, for which some disposition had to be found. The disposal of sulphuric acid during the first quarter of the year naturally affected the [illegible]. The price of 66-degree got to $11 per ton. The greatest weakness was in the Southern markets, for there the largest quantities of acid were held. By May the market had steadied somewhat, and sales of 66-degree were being made at $15. That price lasted for pretty nearly the balance of the year. Producers were making the usual concessions to consumers taking on contract; but that is a characteristic of the market. Contract business in the fall was less successful than had been hoped. It was comparatively light, and there was apprehension as to whether factors would be able to maintain prices. Stocks were not excessive, and resale acid had been completely cleaned up months before, so that the fear of a break in the market was not fulfilled. As a matter of fact, at the end of the year the market was decidedly steady in tone, with 66-degree acid unobtainable at less than $14.

Consumption of muriatic during the spring and summer was heavy, and there was barely enough to meet requirements. The tight position of supplies during the first half of the year resulted in somewhat higher prices being established at the beginning of the year than had been quoted during 1922. These prices were maintained throughout the rest of the year, with the exception of December. Contract business in mineral acids was poor during the fall, and as there had been a let-up in consumption during that time as well, certain producers had stocks pile up in a way that disconcerted them. On contracts, 18-degree was cut to 80c. per 100 pounds, after having sold at 90c. for the previous 11 months. This competitive wedge introduced, other producers cut prices to that level, and large contracts were entered for 1924 at anywhere from 80c. to 90c.

There was less demand for nitric than for either of the other mineral acids. The market showed less improvement as regards consumption than did the others. There had been a good production and stocks at the beginning of 1923 were in large volume. The price was low, but consumers were fewer than they had been and buying adhered to a dead level of routine throughout the whole year. Towards the middle of December there was a sudden advance in nitrate of soda, which enters largely into the production of the acid and on which the price of the acid is figured. This strengthened the tone of nitric and at the same time demand was stimulated. The year closed with the market in the firmest position it had occupied since January. The price of 42-degree remained at $5.25 per 100 pounds, but the extreme firmness of raw material altered sellers' views altogether.

Formic, Oxalic Interesting

Little formic acid is manufactured in this country. Since the war there has been only one maker, and at times he was unable to supply goods. His production has been greatly curtailed. The new tariff, while imposing a duty on formic, has not prevented dealers bringing in large quantities of German acid and selling it cheaply. This competition the domestic maker has found impossible to meet because of the costs of production in this country. It has been impossible to reduce the costs sufficiently to allow of the acid being marketed at less than 15c. per pound. Needless to say, that is a price that the importers have been able to undersell with impunity. The imported sold as early as February at 14¾c. and reached 12c. in June, during which month importation was greatest. The 12c. price was fairly well maintained for the next six months; during December, the advancing costs of importation caused dealers to advance prices to 12½c. The foreign situation changed much during that month. Stocks had been reduced, so that there was little for export, inasmuch as production was also handicapped. German makers demanded more for their product. By the end of the month it became apparent that prices in the New York market were due for an advance. An increase in consumption threatened to reduce stocks to nil. The last week of December saw the 12½c. price established, with an undertone so firm as to indicate but a little while in which to obtain supplies at that figure. Imports of formic into the United States in 1923 amounted to 1,275,705 pounds, valued at $95,405. In 1922 imports were 273,181 pounds, valued at $20,481.

Oxalic acid was also imported in heavy volume during the year, but in this material domestic manufacturers were able to compete successfully with the foreign. During most of the year, the price of oxalic was established by the domestic makers, and the importers had to follow suit. The facilities for the manufacture of oxalic acid in this country offer every advantage. In January the price was 13¼c. per pound. Increased importation and competition between domestic makers resulted in sales at 12¾c. during February, but the market recovered to 13¼c. as soon as the stocks that producers had accumulated had been removed. However, competition between domestic makers continued and by the first of September 12c. was reached. During the next month an access of foreign acid resulted in sales at 11½c. That marked the low for the year, as prices were steady at 12c. during November and December. Imports of oxalic into the United States in 1923 amounted to 2,629,297 pounds, valued at $206,861. In 1922, imports were 1,294,236 pounds, valued at $106,627.

The conditions surrounding production of boric acid change little from year to year. Prices during 1923, however, declined to practically pre-war levels. The reductions in prices were the result of the competition between the producers. There have been a number of new interests in this material arise within the last two years, and this has resulted in heavy production. The competition between different factors reached such a point in April that prices of all grades of acid were abrutly cut 1c. on the first of May. This brought the price of crystals to 10c. per pound, after having been at 11c. for nearly a year. The price endured until September, when a further reduction of ½c. was made. The 9½c. price held for the rest of the year. The export movement of boric during the year was extremely heavy. Shipments showed a gain over previous year. The exact figures will be found in a table on another page of this Annual Market Review issue.

Acetic at Record Heights

Acetic acid advanced during the year to higher prices than had been seen (with the exception of the abnormal war period) for twenty-five years. There was only one reason for the advances and that was the cost of acetate of lime. Production of acetate during the first half of the year was not as large as usual and demand was so good that stocks were much reduced. The price of acetate was advanced in April to $4 per 100 pounds, and a multitude of derivative materials immediately changed. Twenty-eight percent acetic acid, which had sold at $3.17½ per 100 pounds since the first of the year, was moved to $3.38, remaining at that level until the end of the year. The glacial was advanced from $12.05 to $12.78. The higher prices for acetic resulted in a decrease in consumption. Consumers found that they could secure the imported formic acid at a cheaper price relatively than acetic. As formic can be substituted for acetic in many processes, it was immediately in heavy demand. Many contracts in acetic were cancelled and makers lost considerable money.

Citric acid did not fluctuate greatly during the year. Domestic makers were harassed by competition from imported material, despite the 17c. per pound duty imposed in the 1922 tariff. The early part of the year saw a shortage of domestic material, but as the season approached the zenith this condition was remedied successfully. Domestic makers had been holding the price at 50c. per pound during this time when they did not have much stock. Imported had sold at 49c. and even 48½c. in February and March. The opening up of the consuming season resulted in advances, and from 48½c. in April the price touched 52c. in May. That was the top. The rest of the year saw a gradual decline, due to the accumulation of stocks of imported and the natural decrease in consumption. In December imported citric sold at 47c., while domestic had been reduced from 50c. to 48c. Importations of citric acid into the United States in 1923 amounted to 820,370 pounds, valued at $250,845. That was considerable decrease from 1922, when imports amounted to 1,325,366 pounds, valued at $477,568.

The position of tartaric acid was somewhat similar to that of citric. Domestic makers were faced with sharp competition from importers who bought in large quantities of acid early in the year, selling at 30½c. per pound. Stocks had been reduced by the first of May, however, and, as that was the middle of the heavy consuming season, the price was advanced rapidly to 36½c. per pound. As demand ebbed, prices yielded also, and by a series of gradual declines prices were at 28c. at the end of December. Importations of tartaric acid during 1923 amounted to 2,653,919 pounds, valued at $641,597. In 1922, importations amounted to 2,802,063 pounds, valued at $651,474.

Industrial Chemicals: Record of Prices

Alum, Ammonia, Lump

On October 18, 1871, the price was $2.15 per 100 pounds; 1881, $2.15; 1891, $1.50; 1901, $1.75; 1911, $1.75; 1913, $1.75; 1918, September, $8.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.50	$3.50	$3.50	$3.50
February	3.50	3.50	3.50	3.50
March	3.50	3.50	3.50	3.50
April	3.50	3.50	3.50	3.50
May	3.50	3.25	3.50	3.50
June	3.25	3.25	3.50	3.50
July	3.25	3.25	3.50	3.50
August	3.25	3.25	3.50	3.50
September	3.50	3.25	3.50	3.50
October	3.50	3.50	3.50	3.50
November	3.50	3.50	3.50	3.50
December	3.50	3.50	3.50	3.50
Year	3.50	3.25	3.50	3.50

Aluminum Sulphate, Commercial

On August 20, 1894, the price was $1.25 per 100 pounds; 1901, $1.35; 1911, 90c.; 1913, 90c.; 1917, November, $3.60.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.60	$1.60	$1.50	$1.50
February	1.60	1.60	1.50	1.50
March	1.60	1.60	1.50	1.50
April	1.55	1.50	1.50	1.50
May	1.50	1.50	1.50	1.40
June	1.50	1.50	1.40	1.40
July	1.50	1.50	1.40	1.40
August	1.50	1.50	1.40	1.40
September	1.50	1.50	1.40	1.40
October	1.60	1.50	1.40	1.40
November	1.60	1.50	1.40	1.40
December	1.50	1.50	1.40	1.40
Year	1.60	1.50	1.50	1.40

Aluminum Sulphate, Iron-free

On August 20, 1894, the price was $1.75 per 100 pounds; 1901, $1.75; 1911, $1.75; 1913, $1.25; 1918, October, $4.50.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.50	$2.50	$2.50	$2.50
February	2.50	2.50	2.50	2.50
March	2.50	2.50	2.50	2.50
April	2.50	2.50	2.50	2.50
May	2.50	2.50	2.50	2.25
June	2.50	2.50	2.25	2.25
July	2.25	2.25	2.25	2.25
August	2.25	2.25	2.40	2.25
September	2.25	2.25	2.40	2.40
October	2.50	2.25	2.40	2.40
November	2.50	2.50	2.40	2.40
December	2.50	2.50	2.40	2.40
Year	2.50	2.25	2.50	2.25

Ammonia, Aqua, 26 Degrees

On October 18, 1871, the price was 10¼c. to 11c. per pound; 1881, 9½c.; 1891, 9½c.; 1901, 5½c.; 1911, 4¾c.; 1918, May, 30c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07½	$0.07½	$0.06¾	$0.06¾
February	.07½	.07½	.06¾	.06¾
March	.07½	.07¼	.06¾	.06¾
April	.07½	.07¼	.06¾	.06¾
May	.07¼	.07¼	.06¾	.06¾
June	.07¼	.07	.06¾	.06¾
July	.07	.06¾	.06¾	.06¾
August	.07	.06¾	.07	.06¾
September	.07	.07	.07	.07
October	.07	.07	.07	.07
November	.07	.06¾	.07	.07
December	.06¾	.06¾	.07	.07
Year	.07½	.06¾	.07	.06¾

Ammoniac, Sal, Lump

On October 18, 1871, the price was 10c. to 10¼c. per pound; 1881, 11c. to 12c.; 1891, 8¼c. to 8½c.; 1901, 5¾c. to 6c.; 1911, 5¾c. to 6½c.; 1917, July, 22c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.15	$0.15	$0.16	$0.15
February	.15	.15	.15	.15
March	.15	.15	.15	.14
April	.15	.15	.15	.15
May	.15	.15	.15	.15
June	.15	.15	.15	.13
July	.15	.15	.13	.13
August	.15	.15	.13	.13
September	.15	.15	.13	.13
October	.15	.15	.13	.13
November	.16	.15	.13	.13
December	.16	.16	.13	.13
Year	.16	.15	.16	.13

Antimony, Needle

On October 18, 1871, the price was 11¼c. per pound; 1881, 10¾c.; 1891, 8½c.; 1901, 7¾c.; 1911, 5½c.; 1913, 4½c.; 1917, January, 20c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04½	$0.04½	$0.05	$0.05
February	.04½	.04½	.06½	.05
March	.04½	.04½	.07	.06½
April	.05	.04½	.08	.07
May	.04½	.04½	.08	.07½
June	.04¾	.04¾	.07	.05½
July	.04¾	.04¾	.06	.06
August	.04¾	.04¾	.06	.06
September	.04¾	.04¾	.06½	.06
October	.04¾	.04¾	.06½	.06½
November	.04¾	.04¾	.07	.06½
December	.05	.04¾	.07½	.07
Year	.05	.04½	.08	.05

Argols, Crude, 30 Percent

On October 18, 1871, the price was 6c. per pound; 1881, 4½c.; 1891, 2¾c.; 1901, 2¼c.; 1913, 3c.; 1915, January, 18c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10	$0.10	$0.07	$0.07
February	.10	.10	.07	.07
March	.10	.10	.07	.07
April	.10	.08	.07	.07
May	.08	.08	.07	.07
June	.08	.08	.07	.07
July	.08	.08	.07	.07
August	.07	.07	.07	.06½
September	.07	.07	.06½	.06½
October	.07	.07	.06½	.06½
November	.07	.07	.06½	.06½
December	.07	.07	.06½	.06½
Year	.10	.07	.07	.06½

Arsenic, Red

On October 18, 1871, the price was 5½c. per pound; 1881, 5¾c.; 1891, 5c.; 1901, 7c.; 1911, 6¼c.; 1913, 5¾c.; 1916, December, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11	$0.11	$0.13	$0.13
February	.11	.11	.14½	.13
March	.12	.11	.14½	.14½
April	.12	.12	.14½	.14½
May	.12½	.12	.14½	.14½
June	.12½	.12½	.14½	.14½
July	.12½	.12½	.15½	.15
August	.12½	.12½	.15½	.15½
September	.12½	.12½	.15½	.15½
October	.12½	.12½	.15½	.15
November	.12½	.12½	.15	.15
December	.13	.12½	.15	.15
Year	.13	.11	.15½	.13

Arsenic, White

On October 18, 1871, the price was 1⅞c. per pound; 1881, 2¾c. to 3½c.; 1891, 2⅞c. to 3c.; 1901, 3¾c. to 3⅞c.; 1911, 2¼c. to 2⅝c.; 1913, 3½c.; 1917, May, 20c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.05½	$0.16	$0.15¼
February	.07	.06	.16	.15½
March	.07	.06¼	.15½	.15½
April	.07	.06¾	.16	.15¾
May	.06¾	.06¾	.15¾	.15
June	.07¼	.07	.15	.13¾
July	.08¼	.07	.13½	.11
August	.08½	.08½	.11	.09¾
September	.08½	.08	.10	.09¾
October	.09½	.08	.12	.10
November	.14	.10¾	.14½	.12¾
December	.15½	.15	.14½	.14
Year	.15½	.05½	.16	.09¾

Barium Chloride

On August 20, 1906, the price was $33.50 per ton; October 18, 1911, $31.50; 1913, $33; 1916, February, $140.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$50.00	$50.00	$90.00	$90.00
February	55.00	50.00	90.00	90.00
March	55.00	55.00	90.00	90.00
April	100.00	55.00	90.00	85.00
May	100.00	100.00	90.00	85.00
June	95.00	95.00	90.00	90.00
July	95.00	87.50	90.00	82.00
August	85.00	80.00	82.00	82.00
September	110.00	80.00	82.00	82.00
October	95.00	90.00	85.00	82.00
November	95.00	90.00	90.00	85.00
December	95.00	95.00	85.00	82.50
Year	110.00	50.00	90.00	82.00

Bleaching Powder

On October 18, 1871, the price was $3.50 per 100 pounds; 1881, $1.07; 1891, $2.25; 1901, $1.75; 1911, $1.50; 1913, $1.25; 1916, January, $14.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$2.00	$2.25	$2.25
February	2.00	1.90	2.25	2.00
March	1.90	1.75	2.00	2.00
April	1.75	1.60	2.00	2.00
May	1.60	1.60	2.00	1.90
June	1.60	1.60	1.90	1.90
July	1.60	1.60	1.90	1.75
August	1.75	1.60	1.75	1.75
September	1.75	1.75	1.50	1.50
October	2.00	1.75	1.50	1.50
November	2.00	1.90	1.25	1.25
December	1.90	1.90	1.25	1.25
Year	2.00	1.60	2.25	1.25

Brimstone, at Mines

On October 18, 1871, the price was $33.50 per ton; 1881, $31 to $32; 1891, $29 to $30; 1901, $24 to $28; 1911, $22 to $22.50; 1913, $22; 1917, February, $45.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$15.00	$15.00	$14.00	$14.00
February	15.00	14.00	14.00	14.00
March	14.00	14.00	14.00	14.00
April	14.00	14.00	14.00	14.00
May	14.00	14.00	14.00	14.00
June	14.00	14.00	14.00	14.00
July	14.00	14.00	14.00	14.00
August	14.00	14.00	14.00	14.00
September	14.00	14.00	14.00	14.00
October	14.00	14.00	14.00	14.00
November	14.00	14.00	14.00	14.00
December	14.00	14.00	14.00	14.00
Year	15.00	14.00	14.00	14.00

Calcium Arsenate

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.16	$0.16	$0.18	$0.16
February	.16	.14	.18	.18
March	.14	.13	.18	.18
April	.13	.13	.18	.18
May	.13	.12	.18	.17
June	.12	.11	.17	.16
July	.11	.11	.16	.15
August	.11	.11	.14	.13
September	.11	.11	.13	.12
October	.11	.10	.15	.12
November	.10@Nom.		.13	.12
December	.16	.15	.13	.13
Year	.16	.10	.18	.12

Calcium Carbide

In 1900, when first introduced on a large scale, the price was $5.50 per 100 pounds; 1918, July, $16.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.50	$4.50	$5.50	$5.50
February	4.50	4.50	5.50	5.50
March	4.50	4.50	5.50	5.50
April	4.50	4.50	5.50	5.50
May	4.50	4.50	5.50	5.50
June	4.50	4.50	5.50	5.50
July	4.50	4.50	5.50	5.50
August	4.50	4.50	5.50	5.50
September	4.50	4.50	5.50	5.50
October	4.50	4.50	5.50	5.50
November	4.50	4.50	5.50	5.50
December	4.50	4.50	5.50	5.50
Year	4.50	4.50	5.50	5.50

Carbon Tetrachloride

In January, 1911, the price was 7½c. per pound; October 18, 1913, 7¾c.; 1918, October, 45c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10½	$0.10½	$0.10	$0.09
February	.10½	.09½	.09	.09
March	.09½	.09½	.09	.09
April	.09½	.09½	.09	.09
May	.09½	.09½	.09	.09
June	.09½	.09½	.09	.09
July	.09½	.09½	.09	.09
August	.09½	.09½	.09	.09
September	.09½	.09½	.09	.09
October	.09¼	.09¼	.09	.09
November	.10	.09½	.09	.09
December	.10	.10	.09	.09
Year	.10¼	.09½	.10	.09

Chlorine, Liquid

In 1907, when it was first introduced, the price was 25c. per pound; October 18, 1911, 15c.; 1918, June, 22c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.05¾	$0.05¾
February	.08	.06	.05¾	.05¾
March	.06	.06	.05¾	.05¾
April	.06	.05	.05¾	.05¾
May	.05	.05	.05¾	.05¾
June	.05	.05	.05¾	.05¾
July	.05	.05	.05½	.05½
August	.05	.05	.05½	.05½
September	.05¾	.05	.05	.05
October	.05¾	.05¾	.05	.05
November	.05¾	.05¾	.05½	.05½
December	.05¾	.05¾	.05½	.05½
Year	.08	.05	.05¾	.05

Copper Sulphate, 99 Percent (*Blue Vitriol*)

On October 18, 1871, the price was $10.50 per 100 pounds; 1881, $6.50 to $7; 1891, $3.50 to $3.75; 1901, $4.75 to $4.90; 1911, $4.50 to $4.75; 1913, $5; 1916, January, $23.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$5.25	$5.00	$6.00	$6.00
February	5.45	5.25	6.50	6.10
March	5.75	5.50	6.50	6.50
April	5.60	5.40	6.50	6.25
May	6.00	5.60	6.15	5.90
June	6.25	6.00	5.90	5.60
July	6.25	6.25	5.60	5.40
August	6.00	6.00	5.40	5.35
September	5.90	5.90	5.25	5.00
October	5.90	5.75	5.00	5.00
November	5.75	5.75	5.00	4.90
December	5.90	5.90	4.90	4.65
Year	6.25	5.00	6.50	4.65

Copperas (*Iron Sulphate*)

On October 18, 1871, the price was $8.50 per 100 pounds; 1881, 60c.; 1891, 80c.; 1901, 30c.; 1911, 60c.; 1913, 70c.; 1918, December, $2.50.

	Per 100 lbs.		Per ton	
	1922.		1923.	
	H.	L.	H.	L.
January	$0.75	$0.75	$21.00	$21.00
February	.75	.75	20.00	20.00
March	.75	.75	20.00	18.00
April	.75	.75	18.00	18.00
May	.75	.75	18.00	18.00
June	1.00	1.00	18.00	18.00
July	1.00	.75	18.00	18.00
August	1.00	.75	18.00	18.00
September	1.00	1.00	18.00	18.00
October	1.00	1.00	18.00	18.00
November	1.25	1.25	18.00	18.00
December	1.25	1.25	18.00	17.00
Year	1.25	.75	21.00	17.00

Fluorspar, Washed Gravel, 85 Percent

On December 16, 1918, the price was $90 per ton.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$20.00	$20.00	$18.00	$18.00
February	20.00	20.00	21.50	21.50
March	20.00	20.00	21.50	21.50
April	20.00	20.00	21.50	21.50
May	20.00	20.00	21.50	21.50
June	20.00	20.00	23.50	21.50
July	20.00	20.00	23.50	23.50
August	20.00	20.00	23.50	23.50
September	20.00	20.00	23.50	23.50
October	20.00	20.00	23.50	23.50
November	20.00	18.00	23.50	23.50
December	18.00	18.00	23.50	23.50
Year	20.00	18.00	23.50	18.00

Glauber Salt

On October 18, 1871, the price was $2.10 per 100 pounds; 1881, $1.10; 1891, $1.15; 1901, 90c.; 1911, 75c.; 1913, 60c.; 1918, July, $3.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.00	$1.00	$1.25	$1.25
February	1.00	.95	1.25	1.25
March	.95	.85	1.25	1.25
April	.95	.90	1.25	1.25
May	.90	.85	1.25	1.25
June	.85	.75	1.25	1.25
July	.85	.75	1.30	1.25
August	.75	.75	1.25	1.00
September	.75	.75	1.00	.85
October	.75	.75	.85	.85
November	.85	.85	.85	.85
December	.85	.85	.85	.85
Year	1.00	.75	1.30	.85

Lead, Acetate, Brown, Broken

On October 18, 1871, the price was 10¾c. per pound; 1881, 8½c.; 1891, 6¼c.; 1901, 6c.; 1911, 7¾c.; 1913, 7¾c.; 1918, March, 17c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09⅝	$0.09⅝	$0.12	$0.10⅝
February	.09⅝	.09⅝	.12	.12
March	.09⅝	.09⅝	.12½	.12
April	.09⅝	.09⅝	.12½	.12½
May	.09⅝	.09¼	.13	.12⅝
June	.09¼	.09⅛	.13	.13
July	.09¼	.09⅛	.13	.13
August	.09⅛	.09⅛	.13	.13
September	.09⅛	.09¼	.13	.13
October	.10⅛	.09⅝	.13	.13
November	.10⅛	.10⅛	.13	.13
December	.10⅛	.09⅛	.13	.10⅝
Year	.10⅝	.09⅛	.13	.10⅝

Lime, Acetate

In 1871 the price was $6.35 per 100 pounds; 1881, $3.60; 1891, $1.90; 1901, $1.55; 1913, $2; 1916, January, $7.05.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.75	$1.75	$3.50	$3.50
February	1.75	1.75	3.50	3.50
March	1.75	1.75	4.00	3.50
April	1.75	1.75	4.00	4.00
May	1.75	1.75	4.00	4.00
June	2.35	2.00	4.00	4.00
July	2.35	2.35	4.00	4.00
August	2.75	2.35	4.00	4.00
September	2.75	2.75	4.00	4.00
October	3.50	3.00	4.00	4.00
November	3.50	3.50	4.00	4.00
December	3.50	1.75	4.00	3.50

Eighteen Years' Prices

	H.	L.
1905	$2.35	$2.00
1906	2.40	2.35
1907	2.55	2.25
1908	2.30	1.50
1909	2.05	1.50
1910	2.05	2.00
1911	2.05	1.75
1912	2.55	2.25
1913	2.55	2.00
1914	2.05	1.50
1915	6.10	2.00
1916	7.05	3.50
1917	6.05	3.50
1918	6.05	3.00
1919	3.05	2.00
1920	3.50	2.00
1921	2.00	1.50
1922	3.50	1.75
1923	4.00	3.50

Nickel Salts, Single

On September 11, 1891, the price was 15c. per pound; October 18, 1901, 10½c.; 1911, 13c.; 1913, 12c.; 1918, September, 17c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.11	$0.10½	$0.10½
February	.11	.11	.10½	.10½
March	.11	.11	.10½	.10½
April	.11	.11	.10½	.10½
May	.11	.11	.10½	.10½
June	.11	.11	.10½	.10½
July	.11	.11	.10½	.10½
August	.11	.10	.10½	.10½
September	.11	.11	.10½	.10½
October	.11	.11	.10½	.10½
November	.11	.10½	.10½	.10½
December	.10½	.10½	.10½	.10½
Year	.12	.10	.10½	.10½

Phosphorus, Red

On October 18, 1871, the price was $1.15 per pound; 1881, 58c.; 1891, 65c.; 1901, 60c.; 1911, 50c.; 1913, 50c.; 1918, January, $1.70.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.45	$0.45	$0.45	$0.45
February	.45	.45	.45	.45
March	.45	.45	.45	.45
April	.45	.25	Nominal	
May	.25	.25	Nominal	
June	.25	.25	Nominal	
July	.25	.35	.75	.70
August	.25	.25	.70	.70
September	.25	.25	.70	.70
October	.29	.25	.70	.70
November	.29	.29	.70	.70
December	.30	.29	.70	.70
Year	.45	.25	.75	.45

Phosphorus, Yellow

On October 18, 1871, the price was $1.10 per pound; 1881, 55c.; 1891, 60c.; 1901, 45c.; 1911, 45c.; 1913, 45c.; 1918, January, $2.10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.35	$0.30	$0.35	$0.35
February	.35	.35	.35	.35
March	.35	.35	.35	.35
April	.35	.25	.35	.35
May	.25	.25	.35	.35
June	.25	.25	.35	.35
July	.25	.25	.35	.35
August	.25	.25	.35	.35
September	.25	.25	.35	.35
October	.28	.25	.35	.35
November	.35	.35	.35	.35
December	.35	.35	.35	.35
Year	.38	.25	.35	.35

Potash, Carbonate, Calcined, 80 to 85 Percent

On October 18, 1871, the price was 15c. per pound; 1881, 6¼c.; 1891, 5c.; 1901, 4¼c.; 1911, 3½c.; 1913, 3¼c.; 1917, November, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04¾	$0.04¾	$0.06	$0.05¾
February	.04¾	.04¾	.05¾	.05¾
March	.04¾	.04¾	.06	.05¾
April	.06¼	.04¾	.06¾	.06
May	.05¼	.04¾	.06¾	.06½
June	.05	.04¾	.06½	.06½
July	.06⅞	.04½	.06½	.06½
August	.06¼	.06¼	.06½	.06¼
September	.05	.04¾	.06¼	.06¼
October	.05½	.05	.06¼	.05¾
November	.06	.05¾	.06	.05¾
December	.05¾	.05¾	.06	.05¼
Year	.06½	.04¾	.06¾	.05¼

Potash, Caustic, 88 to 92 Percent

On October 18, 1871, the price was 7¼c. per pound; 1881, 6c.; 1891, 6¾c.; 1901, 6c.; 1911, 3¾c.; 1913, 4c.; 1916, February, $1.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.05¼	$0.05¼	$0.07	$0.06
February	.05¼	.05	.07¼	.07¼
March	.05¾	.05½	.07½	.07½
April	.06	.05¾	.08¼	.07¾
May	.06	.06	.08¼	.07¾
June	.06	.05¾	.07½	.07½
July	.05¾	.05¾	.07½	.07¼
August	.05½	.05⅞	.07¼	.07
September	.06	.05⅞	.07¼	.07¼
October	.06¼	.06	.07¼	.07
November	.06½	.06½	.07	.06¾
December	.06¾	.06¼	.06¾	.06¼
Year	.06½	.05	.08¼	.06

Potash, Caustic, 70 to 75 Percent

On October 18, 1871, the price was 7c. per pound; 1881, 5¼c.; 1891, 6¼c.; 1901, 5¾c.; 1911, 5½c.; 1913, 3½c.; 1917, November, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.08	$0.08
February	.08	.09	.08	.08
March	.08	.08	.08	.08
April	.08	.08	.09	.08
May	.08	.08	.09	.09
June	.08	.08	.09	.09
July	.08	.08	.09	.09
August	.08	.08	.09	.09
September	.08	.08	.09	.09
October	.08	.08	.08¼	.08¼
November	.08	.08	.08¼	.08¼
December	.08	.08	.08¼	.08¼
Year	.08	.08	.09	.08

Potash, Chlorate

On October 18, 1871, the price was 55c. per pound; 1881, 15⅝c.; 1891, 10⅞c.; 1901, 8¼c.; 1911, 8¼c.; 1913, 8¼c.; 1916, March, 75c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.05½	$0.05½	$0.07½	$0.07
February	.05⅝	.05½	.07	.06¾
March	.06	.06	.07½	.07
April	.06	.06	.07½	.07¼
May	.06	.06	.07⅝	.07⅜
June	.06½	.06⅜	.07⅝	.07⅜
July	.06¼	.06½	.07¼	.07¼
August	.06¼	.06	.07½	.07¼
September	.07½	.06	.07½	.07½
October	.07½	.07½	.07¼	.07¼
November	.07⅜	.07½	.07¼	.07¼
December	.07⅜	.07½	.07¼	.07
Year	.07⅜	.05½	.07⅜	.06¾
September	.15½	.15	.18	.15½

Potash, Permanganate, Technical

In 1901 the price was 9c. to 11c.; October 18, 1911, 8¾c.; 1913, 9¾c.; 1918, September, $2.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.12	$0.17	$0.15¾
February	.14	.12	.18	.17
March	.14	.14	.21	.17½
April	.15	.14	.25	.23
May	.14	.14	.22½	.18¾
June	.14	.14	.18¾	.16¾
July	.15	.15	.16¾	.16¼
August	.15	.15	.16½	.16½
September	.15	.15	.17	.16¾
October	.15	.14¾	.17	.17
November	.15	.14¾	.17	.17
December	.15	.12	.17	.14½
Year	.15	.12	.25	.14½

Salt Cake, Ground, Barrels

In October, 1881, the price was $18 per ton; October 18, 1891, $15; 1901, $15; 1911, $12; 1913, $11.50; 1920, August, $80.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$17.00	$17.00	$25.00	$25.00
February	17.00	17.00	25.00	25.00
March	17.00	17.00	25.00	25.00
April	21.00	17.00	25.00	25.00
May	18.00	18.00	25.00	25.00
June	18.00	18.00	25.00	25.00
July	18.00	18.00	25.00	25.00
August	20.00	20.00	25.00	25.00
September	25.00	21.00	25.00	25.00
October	25.00	25.00	25.00	22.00
November	25.00	25.00	22.00	22.00
December	25.00	25.00	22.00	22.00
Year	25.00	17.00	25.00	22.00

Saltpeter, Crystals

On September 16, 1879, the price was 6c. per pound; October 18, 1881, 7c.; 1891, 6¾c.; 1901, 4¼c.; 1911, 4¾c.; 1913, 6½c.; 1916, January, 38c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08⅝	$0.08⅝	$0.07⅝	$0.07⅝
February	.08⅝	.08⅝	.07⅝	.07⅝
March	.08⅝	.08⅝	.07⅝	.07
April	.08⅝	.08⅝	.07½	.07
May	.08⅝	.08⅝	.07½	.07½
June	.07⅝	.07⅝	.07½	.07½
July	.07⅝	.07⅝	.07½	.07½
August	.07⅝	.07⅝	.07½	.07½
September	.07⅝	.07⅝	.07½	.07½
October	.07⅝	.07⅝	.07½	.07½
November	.07⅝	.07⅝	.07½	.07½
December	.07⅝	.07⅝	.07½	.07½
Year	.08⅝	.07⅝	.07⅝	.07

Soda Ash, Light, 58 Percent

On October 18, 1871, the price was $2.70 per 100 pounds; 1881, $1.50; 1891, $1.60; 1901, 85c.; 1911, 80c.; 1913, 85c.; 1916, February, $4.50.

	In bags, per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.75	$1.50	$1.75	$1.75
February	1.60	1.50	1.75	1.75
March	1.70	1.60	1.75	1.75
April	1.80	1.80	1.75	1.75
May	1.80	1.80	1.75	1.75
June	1.80	1.75	1.75	1.73
July	1.75	1.75	1.75	1.75
August	1.75	1.75	1.75	1.75
September	1.75	1.75	1.48	1.48
October	1.75	1.75	1.48	1.48
November	1.75	1.75	1.48	1.48
December	1.75	1.75	1.48	1.48
Year	1.80	1.50	1.75	1.48

Soda, Bicarbonate

On October 18, 1871, the price was $4.50 per 100 pounds; 1881, $3.70; 1891, $3.25; 1901, 95c.; 1911, $2.75; 1913, $1; 1918, October, $4.50.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$2.00	$2.15	$2.15
February	2.00	1.80	2.15	2.15
March	1.80	1.80	2.15	2.00
April	1.80	1.80	2.00	2.00
May	1.80	1.80	2.00	2.00
June	1.75	1.75	2.00	1.75
July	1.75	1.75	1.75	1.75
August	1.75	1.75	1.75	1.75
September	1.75	1.75	1.75	1.75
October	1.75	1.75	1.75	1.75
November	1.75	1.75	1.75	1.75
December	1.75	1.75	1.75	1.75
Year	2.00	1.75	2.15	1.75

Soda, Caustic, 76 Percent Solid

On October 18, 1871, the price was $4.88 per 100 pounds; 1881, $3.75; 1891, $1.55; 1901, $1.95; 1911, $1.80; 1913, $1.75; 1917, September, $10.70.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.75	$3.75	$3.26	$3.26
February	3.75	3.60	3.26	3.26
March	3.65	3.60	3.26	3.26
April	3.75	3.65	3.26	3.26
June	3.90	3.75	3.26	3.26
May	3.80	3.75	3.26	3.26
July	3.75	3.45	3.26	3.26
August	3.70	3.65	3.20	3.20
September	3.70	3.70	3.20	3.20
October	3.65	3.60	3.20	3.20
November	3.55	3.50	3.20	3.20
December	3.60	3.60	3.20	3.20
Year	3.90	3.45	3.26	3.20

Soda, Chlorate

On October 18, 1871, the price was 46c. per pound; 1881, 15½c.; 1891, 10½c.; 1901, 7¾c.; 1911, 8c.; 1913, 8¼c.; 1916, February, 35c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07	$0.07	$0.06½	$0.06½
February	.07	.06½	.06½	.06½
March	.06¾	.06½	.06½	.06½
April	.06½	.05	.06½	.06½
May	.06	.05½	.06½	.06½
June	.06¼	.06	.06½	.06½
July	.06¼	.06¼	.06¼	.06¼
August	.06¼	.06	.06½	.06¼
September	.06½	.06	.06¼	.06¼
October	.06½	.06½	.06¼	.06¼
November	.06½	.06½	.06¼	.06¼
December	.06½	.06½	.06¼	.06¼
Year	.07	.05	.06½	.06¼

Soda, Cyanide

On October 18, 1913, the price was 25c.; 1917, January, $2.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.26	$0.26	$0.20	$0.20
February	.26	.26	.21	.20
March	.26	.25	.20	.20
April	.25	.25	.20	.20
May	.25	.25	.20½	.20
June	.25	.25	.20	.19
July	.25	.21	.19	.19
August	.21	.20	.20	.19
September	.19	.19	.21	.20
October	.20	.19	.21	.21
November	.20	.20	.21	.21
December	.20	.20	.21	.21
Year	.26	.19	.21	.19

Soda, Nitrite, 96 to 98 Percent

Not quoted prior to August, 1917, when price was 44c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07	$0.06	$0.08¼	$0.08
February	.07	.06¾	.08¼	.08¼
March	.07	.07	.08¼	.08
April	.08½	.07	.08	.08
May	.08½	.07	.08	.08
June	.08½	.08½	.07¼	.07¼
July	.08¼	.08¼	.07¼	.07¼
August	.07¾	.07½	.07¼	.07¼
September	.09½	.07¾	.07¼	.07¼
October	.08	.07¾	.07¼	.07¼
November	.08¼	.08	.07½	.07¼
December	.08	.08	.08	.07½
Year	.09½	.06	.08¼	.07¼

Soda, Sal

On October 18, 1871, the price was $1 per 100 pounds; 1881, $1.10; 1891, $1.05; 1901, 60c.; 1911, 65c.; 1913, 60c.; 1918, November, $2.80.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.60	$1.40	$1.10	$1.10
February	1.40	1.40	1.10	1.10
March	1.40	1.40	1.10	1.10
April	1.40	1.20	1.10	1.10
May	1.20	1.20	1.10	1.10
June	1.20	1.20	1.10	1.10
July	1.20	1.20	1.10	1.10
August	1.20	1.20	1.10	1.10
September	1.20	1.20	1.10	1.10
October	1.20	1.20	1.10	1.10
November	1.20	1.10	1.10	1.10
December	1.10	1.10	1.10	1.10
Year	1.60	1.10	1.10	1.10

Soda, Silicate, 60 Degrees

On January 14, 1901, the price was $2 per 100 pounds; October 18, 1911, $2; 1913, $2; 1918, October, $8.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.20	$2.20	$1.75	$1.75
February	2.20	2.20	1.75	1.75
March	2.20	2.20	1.75	1.60
April	2.20	2.20	1.60	1.60
May	2.20	2.20	1.60	1.60
June	2.20	2.20	1.60	1.60
July	2.20	1.75	1.60	1.60
August	1.75	1.75	1.60	1.60
September	1.75	1.75	1.60	1.60
October	1.75	1.75	1.60	1.60
November	1.75	1.75	1.60	1.60
December	1.75	1.75	1.60	1.60
Year	2.20	1.75	1.75	1.60

Soda Silicate, 40 Degrees

On January 14, 1901, the price was $1 per 100 pounds; October 18, 1911, 65c.; 1913, 60c.; 1918, October, $3.50.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.85	$0.85	$0.72½	$0.72½
February	.85	.85	.72½	.72½
March	.85	.85	.75	.72½
April	.85	.85	.75	.75
May	.85	.85	.75	.75
June	.85	.85	.75	.75
July	.85	.72½	.75	.75
August	.72½	.72½	.75	.75
September	.72½	.72½	.75	.75
October	.72½	.72½	.75	.75
November	.72½	.72½	.75	.75
December	.72½	.72½	.75	.75
Year	.85	.72½	.75	.72½

Soda, Sulphide, 60 Percent

On September 21, 1911, the price was $2.50 per 100 pounds; 1913, $2.50; 1918, November, $12.

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.25	$4.25	$4.00	$3.90
February	4.25	4.25	3.90	3.90
March	4.25	4.25	3.90	3.85
April	4.25	4.25	3.75	3.75
May	4.25	4.25	3.75	3.75
June	4.25	4.00	3.75	3.75
July	3.90	3.85	3.50	3.25
August	4.00	3.90	3.00	3.00
September	3.80	3.80	3.00	3.00
October	3.90	3.80	3.00	3.00
November	4.00	3.90	3.00	3.00
December	4.00	4.00	3.00	3.00
Year	4.25	3.80	4.00	3.00

Soda, Sulphide, 30 Percent

On September 21, 1911, the price was $1.50 per 100 pounds; 1913, $1.50; 1918, October, $7.

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.00	$3.00	$2.75	$2.50
February	3.00	3.00	2.50	2.50
March	3.00	3.00	2.50	2.50
April	3.00	3.00	2.50	2.50
May	3.00	2.75	2.50	2.50
June	2.75	2.50	2.50	2.50
July	2.75	2.75	2.25	2.25
August	2.75	2.75	2.25	2.25
September	2.50	2.50	2.25	2.25
October	2.75	2.50	2.00	2.00
November	2.75	2.75	2.00	2.00
December	2.75	2.75	2.00	2.00
Year	3.00	2.50	2.75	2.00

Soda, Sulphite

On October 18, 1871, the price was 29c. per pound; 1891, 20c.; 1901, 5¼c.; 1911, 2¾c.; 1913, 2¼c.; 1916, January, 6c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.03¾	$0.03¾	$0.03½	$0.03½
February	.03¾	.03½	.03½	.03½
March	.03½	.03½	.03½	.03½
April	.03½	.03½	.03½	.03½
May	.03½	.03½	.03½	.03½
June	.03½	.03½	.03½	.03½
July	.03½	.03½	.03½	.03½
August	.03½	.03½	.03½	.03½
September	.03½	.03½	.03½	.03½
October	.03½	.03½	.03½	.03½
November	.03½	.03½	.03½	.03½
December	.03½	.03½	.03½	.03½
Year	.03¾	.03½	.03½	.03½

Sulphur, Commercial Flour

On October 18, 1871, the price was $3.25 per 100 pounds; 1881, $2.80; 1891, $3.10; 1901, $1.70; 1911, $2; 1913, $2; 1918, January, $3.75.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.45	$1.45	$1.35	$1.35
February	1.45	1.45	1.35	1.35
March	1.45	1.45	1.35	1.35
April	1.35	1.35	1.35	1.35
May	1.35	1.35	1.35	1.35
June	1.35	1.35	1.35	1.35
July	1.35	1.35	1.35	1.35
August	1.35	1.35	1.35	1.35
September	1.35	1.35	1.35	1.35
October	1.35	1.35	1.35	1.35
November	1.35	1.35	1.35	1.35
December	1.35	1.35	1.35	1.35
Year	1.45	1.35	1.35	1.35

Tin Bichloride

In 1871 the price was 45c. per pound; October 18, 1881, 36½c.; 1891, 24¾c.; 1901, 11¾c.; 1911, 11½c.; 1913, 12½c.; 1918, April, 29c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.11	$0.11
February	.09	.09	.11	.11
March	.09	.09	.13½	.11
April	.09	.09	.13¾	.13¾
May	.09	.09	.13	.13
June	.09	.09	.12½	.12½
July	.10	.09	.11½	.11½
August	.10¼	.10	.11½	.11½
September	.10½	.10¼	.12	.12
October	.10½	.10½	.12	.12
November	.10½	.10½	.12¼	.12¼
December	.11	.10¾	.13½	.13½
Year	.11	.09	.13¾	.11

Tin Oxide

On January 28, 1901, the price was 47c. per pound; October 18, 1911, 43c.; 1913, 44c.; 1918, May, $1.10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.37	$0.37	$0.45	$0.45
February	.37	.37	.48	.45
March	.37	.37	.52	.48
April	.37	.37	.52	.52
May	.38	.38	.50	.48
June	.38	.38	.48	.47
July	.38	.38	.45	.45
August	.39	.38	.45	.45
September	.39	.34	.47	.47
October	.39	.39	.47	.47
November	.43	.41	.47	.47
December	.43	.43	.51	.51
Year	.43	.37	.52	.45

Zinc Carbonate

On October 18, 1871, the price was 29c. per pound; 1881, 34c.; 1891, 27c.; 1901, 19c.; 1911, 7¼c.; 1913, 9c.; 1918, January, 20c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.14	$0.14
February	.14	.14	.14	.14
March	.14	.14	.14	.13
April	.14	.14	.14	.13
May	.14	.14	.14	.14
June	.14	.14	.14	.14
July	.14	.14	.14	.14
August	.14	.14	.14	.14
September	.14	.14	.14	.14
October	.14	.14	.14	.14
November	.14	.14	.14	.14
December	.14	.14	.14	.14
Year	.14	.14	.14	.13

Zinc Chloride, Fused

On October 18, 1871, the price was 10c. per pound; 1881, 10½c.; 1891, 8¾c.; 1901, 6½c.; 1911, 4¼c.; 1913, 4½c.; 1917, May, 17c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.05	$0.05	$0.05½	$0.05½
February	.05	.05	.06	.05½
March	.05¼	.05	.05	.05
April	.05¼	.05¼	.05½	.05
May	.05¼	.05	.05½	.05½
June	.05¾	.05¼	.05½	.05½
July	.05¼	.05	.05½	.05½
August	.05	.05	.05	.05
September	.05	.05	.05	.05
October	.07	.05½	.05	.05
November	.05½	.05½	.05	.05
December	.05½	.05½	.05	.05
Year	.07	.05	.06	.05

ACIDS

Acetic, 28 Percent

On October 18, 1871, the price was $1 per 100 pounds; 1881, $3.50; 1891, $1.50; 1901, $1.62; 1911, $1.69; 1913, $1.75; 1918, June, $12.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.50	$2.50	$3.17½	$3.17½
February	2.50	2.50	3.17½	3.17½
March	2.50	2.50	3.17½	3.17½
April	2.50	2.35	3.17½	3.17½
May	2.35	2.25	3.38	3.38
June	2.25	2.25	3.38	3.38
July	2.67½	2.25	3.38	3.38
August	2.67½	2.67½	3.38	3.38
September	2.80	2.67½	3.38	3.38
October	2.80	2.80	3.38	3.38
November	3.17	2.80	3.38	3.38
December	3.17½	3.17½	3.38	3.38
Year	3.17½	2.25	3.38	3.17½

Acetic, Glacial, 99 Percent

On October 18, 1871, the price was $1.15 per 100 pounds; 1881, $8; 1891, $5.50; 1901, $4; 1911, $8.50; 1913, $8; 1918, May, $42.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$10.00	$9.50	$12.05	$12.05
February	9.50	9.50	12.05	12.05
March	9.50	8.50	12.05	12.05
April	8.50	8.50	12.05	12.05
May	8.50	8.50	12.78	12.78
June	8.50	8.50	12.78	12.78
July	10.07	8.50	12.78	12.78
August	10.07	10.07	12.78	12.78
September	10.71	10.07	12.78	12.78
October	10.71	10.71	12.78	12.78
November	12.05	10.71	12.78	12.78
December	12.05	12.05	12.78	12.78
Year	12.05	8.50	12.78	12.05

Battery, 66 Degree, Sulphuric

On October 18, 1871, the price was $2.25 per 100 pounds; 1881, $1.22; 1891, 85c.; 1901, $1.20; 1911, $1; 1913, $1; 1918, September, $9.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.50	$1.50	$1.25	$1.25
February	1.50	1.40	1.25	1.25
March	1.40	1.30	1.25	1.25
April	1.30	1.25	1.25	1.25
May	1.25	1.25	1.25	1.25
June	1.25	1.25	1.25	1.25
July	1.30	1.30	1.25	1.25
August	1.25	1.25	1.25	1.25
September	1.25	1.25	1.25	1.25
October	1.25	1.25	1.25	1.25
November	1.25	1.25	1.25	1.25
December	1.25	1.25	1.25	1.25
Year	1.50	1.25	1.25	1.25

Boric, Crystals

On October 18, 1871, the price was 75c. per pound; 1881 15c.; 1891, 13½c.; 1901, 10¾c.; 1911, 7c.; 1913, 7c.; 1919, December, 14½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12½	$0.12½	$0.11	$0.11
February	.12½	.12½	.11	.11
March	.12½	.11	.11	.11
April	.11	.11	.11	.11
May	.11	.11	.10	.10
June	.11	.11	.10	.10
July	.11	.11	.10	.10
August	.11	.11	.10	.10
September	.11	.11	.09½	.09½
October	.11	.11	.09½	.09½
November	.11	.11	.09½	.09½
December	.11	.11	.09½	.09½
Year	.12½	.11	.11	.09½

Citric, Crystals

On October 18, 1871, the price was 80c. per pound; 1881, 63c.; 1891, 42c.; 1901, 36c.; 1911, 38½c.; 1913, 55c.; 1918, December, $1.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.43	$0.42½	$0.49	$0.49
February	.44	.43	.49	.48½
March	.44	.44	.48½	.48½
April	.45	.44	.50	.48½
May	.44½	.44½	.52	.49
June	.44½	.44½	.49	.49
July	.45	.44	.49	.49
August	.44	.44	.49	.49
September	.50	.44	.49	.49
October	.50	.50	.49	.49
November	.50	.50	.48	.48
December	.50	.50	.47	.47
Year	.50	.42½	.52	.47

Muriatic, 22 Degrees

On October 18, 1871, the price was $3 per 100 pounds; 1881, $1.80; 1891, $1.20; 1901, $1.50; 1911, $1.45; 1913, $1.45; 1916, June, $5.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.50	$1.50	$1.75	$1.75
February	1.50	1.50	1.75	1.75
March	1.50	1.40	1.75	1.75
April	1.40	1.40	1.75	1.75
May	1.40	1.40	1.75	1.75
June	1.40	1.35	1.75	1.75
July	1.35	1.35	1.75	1.75
August	1.40	1.40	1.75	1.75
September	1.40	1.40	1.75	1.75
October	1.40	1.40	1.75	1.75
November	1.75	1.40	1.75	1.75
December	1.75	1.75	1.75	1.75
Year	1.75	1.35	1.75	1.75

Formic

In 1911 the price was 11c.; October 18, 1913, 14c. to 14½c.; 1918, January, 36c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.16	$0.16	$0.15	$0.15
February	.16	.16	.15	.14¾
March	.16	.16	.14¾	.14½
April	.16	.16	.14½	.14½
May	.18	.18	.14½	.14½
June	.18	.18	.14½	.12
July	.18	.18	.12	.12
August	.19	.18	.12	.12
September	.19	.19	.12	.12
October	.19	.18	.12	.12
November	.18	.18	.12	.12
December	.18	.15	.12½	.12
Year	.19	.15	.15	.12

Nitric, 42 Degrees

On October 18, 1871, the price was $13 per 100 pounds; 1881, $8.25; 1891, $4.25; 1901, $4.50; 1911, $4.80; 1913, $4.50; 1917, October, $10.70.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$6.50	$6.50	$5.25	$5.25
February	6.50	6.50	5.25	5.25
March	6.50	6.50	5.25	5.25
April	6.50	6.50	5.25	5.25
May	6.50	6.50	5.25	5.25
June	6.50	6.50	5.25	5.25
July	6.50	5.50	5.25	5.25
August	5.50	5.50	5.25	5.25
September	5.50	5.50	5.25	5.25
October	5.50	5.50	5.25	5.25
November	5.50	5.25	5.25	5.25
December	5.25	5.25	5.25	5.25
Year	6.50	5.25	5.25	5.25

Oleum, 20 Percent

On October 18, 1871, the price was $25 per ton; 1881, $15; 1891, $22; 1901, $36; 1911, $22; 1913, $25; 1918, November, $29.50.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$21.00	$21.00	$17.00	$17.00
February	21.00	19.50	17.00	17.00
March	19.50	19.50	17.00	17.00
April	19.50	19.50	17.00	17.00
May	19.50	19.50	17.00	17.00
June	19.50	19.50	17.00	17.00
July	19.50	19.50	19.50	18.00
August	19.50	19.00	19.50	19.50
September	19.00	19.00	19.50	19.50
October	19.00	17.50	19.50	19.00
November	17.50	17.50	19.00	19.00
December	17.50	17.00	19.00	19.00
Year	21.00	17.00	19.50	17.00

Oxalic

On October 18, 1871, the price was 25c. per pound; 1881, 9¾c.; 1891, 6¾c.; 1901, 5c.; 1911, 7¼c.; 1913, 7½c.; 1916, March, 80c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.13¼	$0.13¼
February	.14	.12	.12¾	.12¾
March	.14	.11½	.13¼	.12¾
April	.11½	.11½	.13	.12¾
May	.14	.12	.13¼	.13¼
June	.14½	.14	.13½	.12½
July	.14½	.14½	.12¼	.12¼
August	.16	.16	.12¼	.12
September	.17½	.17	.12	.12
October	.17	.15	.12	.11¾
November	.15	.14	.12	.12
December	.14	.14	.12	.12
Year	.17½	.11½	.13¼	.11¾

Tartaric, Crystals

On October 18, 1871, the price was 50c. per pound; 1881, 42c.; 1891, 33c.; 1901, 28c.; 1911, 30¼c.; 1913, 31¼c.; 1919, April, 83c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.25	$0.25	$0.30½	$0.30½
February	.25	.25	.31½	.30½
March	.25	.25	.30½	.30½
April	.25	.25	.34½	.30½
May	.27	.25	.36½	.34½
June	.29	.28½	.35¾	.35½
July	.29	.28	.35	.34
August	.28	.28	.34	.34
September	.31	.28	.34	.34
October	.30½	.28	.32	.32
November	.30	.30	.32	.30½
December	.30½	.30	.30	.28
Year	.31	.25	.36½	.28

Sulphuric, 66 Degrees

The price in 1871 was $25 per ton; 1881, $10; 1891, $17; 1901, $27; 1911, $20; 1913, $20; 1916, January, $60.

	Per ton— 1922. H.	L.	1923. H.	L.
January	$16.00	$16.00	$14.00	$14.00
February	16.00	16.00	14.00	14.00
March	17.00	16.00	14.00	14.00
April	17.00	17.00	14.00	14.00
May	17.00	16.00	15.00	15.00
June	16.00	16.00	15.00	15.00
July	16.00	14.00	15.00	15.00
August	14.00	14.00	15.00	15.00
September	14.00	14.00	15.00	15.00
October	14.00	14.00	15.00	15.00
November	14.00	14.00	15.00	15.00
December	14.00	14.00	15.00	15.00
Year	17.00	14.00	15.00	14.00

Tannic, U. S. P.

The price in 1871 was $1.40 per pound; 1881, $1.45; 1891, $1.05; 1901, 65c.; 1911, 58c.; 1913, 54c.; 1918, July, $1.53.

	Per pound— 1922. H.	L.	1923. H	L.
January	$0.65	$0.65	$0.80	$0.80
February	.65	.60	.80	.80
March	.65	.65	.80	.80
April	.65	.65	.80	.80
May	.70	.65	.80	.80
June	.75	.70	.80	.80
July	.75	.75	.80	.80
August	.75	.75	.80	.80
September	.75	.75	.80	.80
October	.75	.75	.80	.80
November	.80	.75	.80	.80
December	.80	.80	.80	.80
Year	.80	.60	.80	.80

Mexican Activities in The Chemical Field

The number of establishments in various lines of chemical and allied industries in Mexico, with their average annual output, is given in the following table:—

Industry.	No.	Output.
Chemicals	13	.....
Colors, paints and varnishes	13	.....
Colors, kilos	..	1,726,800
Paints, kilos	..	1,381,800
Varnishes, kilos	..	1,304,400
Drugs and pharmaceuticals	13	.....
Glass and mirrors	21	.....
Bottles, pieces	..	29,924,400
Plate glass, boxes	..	11,200
Mirrors, boxes	..	3,000
Perfumes and essences	11	.....
Toilet soap, kilos	..	1,500
Soap and candles	175	.....
Common soap, tons	..	24,589
Candles, tons	..	3,779
Wax candles, tons	..	663
Glycerin, tons	..	319
Waxes, gums, etc	6	.....
Turpentine, liters	..	114,000
Refined rosin, tons	..	302
Common rosin, tons	..	145
Candelilla wax, tons	..	100

Manganese in 1923

Shipments of high-grade manganese ore in the United States in 1923, according to preliminary figures compiled by the Geological Survey, Department of the Interior, were approximately 32,000 gross tons, valued at $894,000, or about $28 a ton, compared with 13,404 gross tons in 1922, valued at $455,160, or about $34 a ton. The decrease in average value appears due chiefly to the fact that of the high-grade ore shipped in 1923 a larger part than in 1922 contained only about 35 percent of manganese, whereas most of that shipped in 1922 contained 45 to 53 percent, and, therefore, brought a higher price. Montana, as usual, shipped the largest quantity, about 22,000 tons.

The quarterly imports of manganese ore were as follows:—First quarter, 17,445 tons; second quarter, 62,943 tons; third quarter, 82,025 tons; fourth quarter, 43,635 tons—a total of 206,048 tons, valued at $3,874,510, or an average of $18.80 a ton. These are the smallest imports since 1911, and are less than half those in 1918, when the domestic production was nearly ten times as much as in 1923, and production plus imports amounted to 797,000 gross tons, compared with 238,000 tons in 1923. These figures do not indicate a decrease in the requirements for manganese, however, but the conditions are due to the fact that the imports of ferromanganese in 1923 were large and that manganese ore had been imported and stocked at the furnaces in 1922, prior to the date the new tariff went into effect.

Shipments of lower-grade ores in 1923 amounted to about 305,000 gross tons, containing 10 to 35 percent of manganese, valued at $1,110,000, and 855,000 tons, containing 5 to 10 percent of manganese, valued at $2,760,000. The apparent immense increase in the shipment of ore containing 5 to 10 percent of manganese is due mainly to the fact that prior to 1923 the ore shipped from one Wisconsin mine was recorded as iron ore. The percentage of manganese in this ore has been increasing so much that in 1923 it became necessary to record these shipments as manganiferous iron ore, containing 5 to 10 percent of manganese, instead of as iron ore.

Canada Made Gains in Mineral Output in 1923

OTTAWA, March 5, 1924.

Progress marked every phase of the mineral production of Canada during 1923, and several new commodity production records were established. The output as a whole advanced 16.1 percent in value over the corresponding figures for 1922, reaching a grand total of $214,019,832, as compared with $184,297,242 in 1922 and the record value of $227,859,665 attained in 1920, according to a preliminary report just issued by the Dominion Bureau of Statistics.

New output records were established for coal, lead, zinc, asbestos and the value of cobalt. Copper production, while considerably below the record war-time outputs, was more than double the tonnage produced in 1922 and amounted in all to 43,970 tons. Nickel reached a total of 31,225 tons, as against 8,795 tons in the preceding year. While gold and silver were both less than in 1922, the outputs were greater than in many other recent years and together accounted for values amounting to $36,800,000.

The principal mineral-producing province of Canada in 1923 was Ontario, the value of its mineral production being determined at $79,916,836. British Columbia came second with a mineral production valued at $44,143,390. Alberta was third with $31,646,816. Nova Scotia ranked fourth with $30,534,176. Quebec held fifth place with $19,827,495. The other provinces followed in the order named:—Yukon Territory, $2,641,745; New Brunswick, $2,205,846; Manitoba, $1,753,908; and Saskatchewan, $1,349,620.

Lime Production in 1923

Production of lime in the United States last year totaled 4,057,000 short tons, which was sold for $39,413,000, according to estimates made public today by the U. S. Geological Survey. This is over 11 percent greater than the sales in 1922, and only slightly less than the figure for 1916, the year of largest recorded production.

The demand for chemical lime was steadier throughout the year than that for construction lime, and though some manufacturers of chemical lime reported small sales, the total sales in 1923 will evidently be more than in 1922—possibly 12 percent. The sales of refractory lime (dead-burned dolomite) amounted to about 395,000 short tons in 1923, as against 348,838 short tons in 1922, an increase of 13 percent.

Although some producers reported a considerable demand for agricultural lime in 1923, reports from the chief producing States, including Pennsylvania, Maryland, Virginia, and West Virginia, indicate decreased total sales. The reason given for the decrease in sales is the inability of the farmers to pay the price charged for agricultural lime. Many farmers who burn lime for their own use reported increased output, but the manufacturers of commercial agricultural lime in the same district reported decreased sales. However, the high price of coal, the scarcity of farm labor, and high wages, kept many farmers from burning lime for themselves or their neighbors.

The following table shows the quantity and value of the lime production of the principal producing States in 1923 and 1922, also the quantity of hydrated lime:—

	1923 Total[1] Short tons.	Value.	Hydrated, short tons.	1922 Total Short tons.	Value.	Hydrated, short tons.
Ohio	856,000	$8,250,000	596,000	752,916	$6,495,066	537,816
Pennsylvania	750,000	6,255,000	173,000	719,536	5,581,794	172,179
Missouri	251,000	2,454,000	64,450	203,984	1,953,524	56,024
West Virginia	243,000	2,111,000	48,000	210,146	1,643,055	49,712
Wisconsin	227,600	2,208,000	20,350	189,558	1,589,931	21,680
Alabama	198,000	1,300,000	14,500	168,135	979,331	15,016
Virginia	175,000	1,350,000	30,600	152,436	1,251,683	15,284
Massachusetts	172,000	2,687,000	[2].....	164,980	2,510,368	[2].....
Maine	139,000	1,898,000	[2].....	127,840	1,757,480	[2].....
Indiana	128,000	1,152,000	44,000	113,246	938,645	38,832
New York	127,000	1,300,000	[2].....	96,320	957,079	[2].....
Tennessee	124,000	972,000	38,200	126,305	939,039	26,029
Illinois	91,000	990,000	15,100	85,425	860,945	13,004
Michigan	80,800	842,000	[2].....	53,635	484,945	[2].....
Maryland	66,500	570,000	30,000	71,261	554,194	40,976
California	65,000	862,000	[2].....	55,161	683,774	[2].....
Texas	62,000	597,000	22,200	52,552	524,985	21,163
Connecticut	59,700	833,000	[2].....	52,108	743,742	[2].....
Vermont	52,000	616,000	[2].....	44,745	565,498	[2].....
Minnesota	29,700	342,000	[2].....	27,670	307,270	[2].....
Undistributed	159,700	1,824,000	109,600	171,658	1,932,691	98,348
Totals	4,057,000	$39,413,000	1,206,000	3,639,617	$33,255,039	1,106,063

[1] Estimated.
[2] Included under undistributed.

Necrological Record of 1923

The following list comprises the names of persons connected with the various industries, in the field of the Oil, Paint and Drug Reporter, who died during 1923. Age, date of death, line of business, and the date of publication of the obituary notice are also given:—

Andrews, William H., 63; June 19; paints and varnishes....June 23
Arnold, Humphries Y., 77; October 8; petroleum....Oct. 22
Arnold, Nelson B., 65; November 23; varnishes....Nov. 26, Dec. 3

Bade, Henry A., 65; July 8; paints....July 16
Barnes, Alfred W.; July 24; chemicals.July 30
Barnickel, William S., 45; May 19; petroleum chemist....May 28
Beach, Arthur T., 61; June 11; chemical machinery....July 2
Bell, Edwin C., 75; July 18; petroleum.July 23
Bellows, Capt. Joseph F.; April 20; menhaden....April 30
Bidestrup, Axel J., 50; February 15; color cards....Feb. 26
Bischoff, Gustav, sr., 73; August 28; packer....Sept. 10
Blackmore, W. A., 65; petroleum....April 30
Boardman, George M., 58; November 27; gums, waxes, oils....Dec. 3
Boydell, J. Frank, 56; February 1; paints....Feb. 5
Braden, George, 69; January 3; chemicals....Jan. 8
Braun, William F., 68; July 28; varnishes....Aug. 6
Brooks, Leroy, 77; November 12; drugs and chemicals....Nov. 19
Brown, George E., 54; January 24; oils.Jan. 29
Brown, Lyman B. H., 72; November 7; petroleum....Nov. 19
Brown, Thomas B., 64; insecticides....April 9
Buck, John A., 82; April 7; petroleum.April 23
Burtis, Arthur B., 75; paints....Feb. 5

Camp, Charles H., 61; March 17; proprietary medicines....Mar. 26
Campbell, John R., 92; petroleum....Sept. 17
Canterbury, William H., 71; March 4; petroleum....Mar. 12
Carter, Herbert L., 71; drugs....Jan. 15
Clowes, Prof. F., 85; December 18; chemist....Jan. 7, 1924
Comfort, Major Samuel; October 11; petroleum....Oct. 22
Connors, Edward A.; January 29; paints....Feb. 12
Cook, Fred W., 60; September 3; wholesale druggist....Sept. 24
Cooper, A. S.; November 12; petroleum geologist....Nov. 26
Cowhey, E. M.; September 16; petroleum....Sept. 24
Crossman, T. E.; April 4....April 9

Deacon, Arthur R., 64; January 9; paints....Jan. 22
Dewar, Sir James, 81; March 29; chemist....April 2
Doubleday, John W.; petroleum....Nov. 12

Ellis, Harry P., 50; March 4; varnishes.Mar. 12
Emanuelson, Charles D., 42; May 30; chemicals....June 4
Ensley, Oliver P., 56; March 25; paints.April 2
Erskine, Charles W., 65; December 12; shellacs....Dec. 17

Fergusson, Alexander C., 84; February 26; chemicals....Mar. 5
Fernald, Fred K., 66; January 12; proprietary medicines....Jan. 22
Field, Julian; April 4; cottonseed and fertilizer....April 16
Fuller, Oliver F., 92; April 10; wholesale druggist....April 16

Gage, Guy H., 52; July 16; pharmaceuticals....July 30
Galbraith, Frank H., 67; January 6; drugs....Jan. 15
Gallagher, John A., 71; February 22; wholesale druggist....Mar. 5
Gamble, David B., 76; July 16; soaps..July 23
Gilbert, John J., 78; February 24; wholesale druggist....Mar. 5
Gutterson, Gilbert, 62; March 12; oils.Mar. 19

Hackley, Glenn S., 40; linseed oil....May 14
Hancock, John F., 89; November 12; manufacturing druggist....Nov. 19
Hanrahan, William H., 56; June 3; paints and varnishes....June 18
Harker, Dr. John A., 53; October 10; chemist....Nov. 12
Harvey, Thomas F., 67; August 21; crude drugs....Aug. 27
Haskell, J. Armory, 62; September 9; chemicals....Sept. 17
Heroy, William W., 71; December 26; glass....Dec. 31
Herrington, Frederick C., 68; July 7; wholesale druggist....July 23
Higbie, Albert H., 57; April 13; chemicals....April 16
Hill, Lew C., 72; August 24; brushes..Sept. 3
Hilton, Robert W., 49; February 5; chemicals....Feb. 12
Huester, Ernest L., 73; November 9; paints....Nov. 19

Irving, Edward P., 59; August 16; soda fountains....Aug. 27

Jack, Charles L., November 3; varnishes....Nov. 12
Jackson, Robert D.; January 12; petroleum engineer....Jan. 29
Joblin, Miller; June 16; petroleum....June 25
Johnson, Guy B., 63; April 22; petroleum....April 30
Jones, David B., 75; August 22; paints.Aug. 27
Judge, Robert C., 62; March 11; paints and varnishes....Mar. 19

Keith, Vassel J., 76; March 26; crude drugs....April 2
Kemp, Robert W., 71; June 7; dyestuffs....June 18
King, William C., 84; January 23; glass....Feb. 5
Kiser, Alva D., May 13; paints....May 21
Klipstein, Ernest C., 72; April 29; chemicals....May 7
Knapp, Harry P., 51; April 16; dyes and chemicals....April 30
Knapp, Josiah S., 84; November 12; customs service....Nov. 19
Kohnstamm, Max V., 60; July 23; colors....July 30
Krutch, Edward W., 69; August 21; wholesale druggist....Sept. 10

Lambert, Marion L. J., 42; March 28; proprietary medicines....April 2
Lant, Jeremiah H.; November 13; customs service....Nov. 19
Large, George G. M., 50; June 4; industrial alcohol....June 11
Larned, Dr. Ezra R., 55; July 3; pharmaceutical chemist....July 9
Lewis, Col. Sanford C., 76; September 23; petroleum....Oct. 1
Linnehan, John W., 62; March 5; dyestuffs....Mar. 12
Loeb, Herman A., 67; February 26; chemicals, importer....Mar. 5
Lowe, Willis H., 56; November 28; perfumes....Dec. 10
Lyons, Edward H., 66; January 1; dentifrices....Jan. 8
Lyons, Isaac L., 86; November 14; wholesale druggist....Nov. 26

McElwain, Judson P., 49; August 13; linseed oil....Aug. 20
Macy, Isaac A., 74; November 6; oils..Nov. 12
Mann, Charles A., 63; May 25; castor oil....June 4
Marbury, E. L., 44; April 12; peanut oil....April 30
Marsh, Charles B., 47; September 17; petroleum....Sept. 24
Martin, Robert W., 70; April 17; lampblacks....April 23
Mechling, William H., 77; August 7; chemicals....Aug. 20
Miller, Dr. Adolph, 82; July 6; wholesale druggist....July 9
Moore, William C., 68; February 20; crude drugs....Feb. 26
Morgan, Otho H., 85; October 16; varnishes....Nov. 5
Muspratt, Dr. E. K., 90; September 1; chemicals....Sept. 24

Naylor, Benjamin B., 70; June 24; paints....July 2
Netter, David, 59; July 9; wholesale druggist....July 16

Orr, William C., 79; December 11; wholesale druggist....Dec. 24
Owens, Michael J., 65; December 27; glass....Dec. 31

Parry, John W., 66; October 29; chemicals....Nov. 5
Payne, Dr. George F., 70; April 18; pharmacist....April 23
Phillips, Cecil O.; May 1; cottonseed oil....May 7
Phillips, Dr. Charles E. H., 76; September 29; proprietary medicines....Oct. 8
Phillips, William H., 58; February 17; paints and varnishes....Feb. 26
Powell, William C., 77; April 1; naval stores....April 16
Putnam, Walter A., 52; February 11; varnishes....Feb. 19
Randall, Frederick B., 48; March 3; linseed oil....Mar. 12
Ransom, Lewis E., 82; March 20; dyestuffs....Mar. 26
Rice, Arthur E., 52; August 26; chemicals....Sept. 3
Riker, William J., 83; October 25; chemicals....Oct. 29
Robinson, Joseph E., 58; June 25; petroleum....July 2
Robinson, Roswell R., 88; April 27; soaps....May 7
Rosengarten, Frank H., 80; May 7; chemicals....May 14
Ruf, Frank A., 67; May 28; proprietary medicines....June 4
Russell, Charles M., 51; August 11; pharmaceuticals....Aug. 20
Ryan, Edward F., 37; October 5; oils.Oct. 8

Sadtler, Prof. Samuel P., 76; December 20; chemist....Dec. 24
Samuelson, F. W., 73; August 13; paints....Sept. 3
Schlesinger, Hugo; chemicals....July 23
Schnorrenberger, Paul; 73; June 11; dyes and chemicals....June 18
Seep, Arthur F., jr., 19; August 11; petroleum....Aug. 20
Seep, Joseph, 2d., 24; August 11; petroleum....August 20
Sharples, Stephen P., 81; August 20; chemist....Aug. 27
Shipley, Ewing H., 58; January 31; wholesale druggist....Feb. 12
Signer, Fred E., 54; September 9; dyes and chemicals....Sept. 17
Skinner, John C., 74; chemicals....June 11
Sloan, Dr. Earl S., 75; September 13; proprietary medicines....Sept. 24
Smith, Highbie; November 18; waxes.Nov. 26
Smyth, William J., 54; paints....July 16
Spratt, John C., 66; August 22; pharmaceuticals....Sept. 3
Stallman, Arthur C., 52; February 8; crude drugs....Feb. 12
Staniford, John W., 79; March 4; drug glassware....Mar. 19
Stearns, Theron C., 67; August 21; chemicals....Aug. 27
Stewart, Lyman; September 28; petroleum....Oct. 8
Still, John A., 60; November 11; chemicals....Nov. 19
Stoothoff, James A., 82; drugs....May 7
Sweetland, Cornelius S., 78; May 30; chemicals....June 4
Swift, Francis H., 37; Oct. 7; petroleum....Oct. 15

Talbot, William P., 73; February 18; paints....Feb. 26
Taylor, John A., 48; May 8; naval stores....May 21
Theurkauf, Otto A., 59; May 31; petroleum exporter....June 11
Thomsen, Alonzo; February 14; manufacturing chemist....Feb. 19
Thomson, William, 72; October 4; chemist....Nov. 19
Thorne, Clifford, 45; November 13; petroleum....Nov. 19
Townsend, George, 71; June 1; glues and gelatins....June 11
Tyler, Daniel G., 79; February 9; paints, oils and chemicals....Feb. 19

Van Emden, Henry B., 60; November 6; proprietary medicines....Nov. 12

Waldie, George C., 63; July 23; varnish chemist....Aug. 6
Walker, R. K., 53; dyestuffs....July 16
Wall, Edward F., 65; December 24; wholesale druggist....Jan. 21, 1924
Ware, William W., 74; November 9; oils....Nov. 19
Waring, Orville T., 84; May 18; petroleum....May 21
Warner, Hulbert W., 81; January 27; proprietary medicines....Feb. 5
Waterbury, James H., 42; December 8; paints and varnishes....Dec. 17
Wheeler, Edward G.; July 31; varnishes....Aug. 6
White, William J., 72; February 16; chewing gum....Feb. 19
Whittemore, Charles, 73; October 26; polishes....Nov. 5
Wieder, M. L., 64; paints....Mar. 5

Young, John S.; September 19; extracts....Oct. 3

Coal Tar Products: Market Review

The tariff revision which became law at the third quarter of 1922 had much influence on the course of the market for coal-tar products during 1923. In the first place, the 1922 tariff increased the duties on coal-tar products to such an extent that importation was practically prohibited by the excessive costs. Secondly, apparently through misunderstanding, a number of important crudes were included in the list, which it had originally been designed to exclude. There has never been adequate production of cresylic acids, for example, in the United States to take care of all the domestic consumptive requirements. Reliance has always been placed on English acid to eke out the meager American productions. When cresylic acids were included in the tariff of 1922 consumers found themselves up against a stiff proposition. At the time the tariff was placed in effect supplies in this country were adequate for the time being. But by the first of January, 1923, the situation had radically altered. Cresylic acid had advanced sharply, and was almost impossible to obtain. Other crudes had also become scarce, and in every instance the prices of these materials were increased.

Thus, at the beginning of 1923, the American coal-tar products industry was beset with difficulties at the same time that it had received sufficient protection to enable it to proceed securely toward a definite end. With only one manufacturer of cresylic acid in this country, and hardly more than two or three makers of phenol, neither of these materials was in sufficient volume to meet the requirements of consuming trades. The tariff practically excluded importation of many foreign-made dyes, intermediates and crudes, and thus encouraged more initiative on the part of American interests in the matter of erecting new plants or reopening old ones which had been unused since the war. However, the immense costs of building and equipping a plant for the manufacture of cresylic acid, for instance, caused the more prudent to hesitate, so that not a great deal of progress in increasing native facilities for manufacturing important crudes had been made by the beginning of 1923. During the year, however, satisfactory headway was made in this matter and plants had increased to fully a dozen.

During January and February the curtailment of production of benzol resulted in toluene and xylene tightening up. This reduction in output is a purely seasonable development, always discounted by the trade. Last year it had an unusual significance, inasmuch as stocks of benzol had been limited for some time back. Consumption continued very good for these crudes, and the more limited production of the first two months of the year seriously interfered with consumption for many months afterward.

Effect of Ruhr Campaign

The seizure and occupation of the Ruhr district of Germany by the French prevented further shipments of German intermediates and colors to the Orient. Inquiries were received here, and domestic makers did an excellent business during the first half of the year with Japanese and Chinese consumers. Particular interest was shown in tolidin base and alpha naphthylamine. There was also interest in xylidine, but hardly to the extent that there was in tolidin and alpha. The position of the German industry encouraged renewed efforts on the part of domestic manufacturers, and the foreign markets were pushed for all they were worth. South American business came this way, and the export demand, coupled with the wonderful expansion in domestic buying, caused an unusually firm tone in the market throughout all of March and April.

Early in March buying of phenol got under way. Consumers were amazed to find that stocks were practically exhausted. The price was advanced rapidly by speculative interests, and sales were made during the third week of March at the highest prices that had ever been paid for this material in the history of American trade. The Reporter first quoted a price on phenol in 1875. That was when it was first introduced commercially. The prices which were paid in March of 1923 were on a par with those early quotations. There were only two or three makers, and these were sold up for months to come. Importations of English phenol was the only solution of the shortage, but the cost was tremendous. However, consumers paid it and secured supplies. By the end of the year a number of plants were in operation and supplies had become more than adequate, so that there was no further need of importing foreign phenol. After a month or six weeks of high prices the market gradually yielded as supplies became more plentiful and demand decreased.

During the summer there were few developments of particular importance in any section of the market. The excellent demand of the spring dwindled away in the early part of the summer and buying was not resumed until midfall. Prices of many items declined on account of this dullness, but on the whole values were better maintained than factors had thought likely, and the steadiness which characterized intermediates was a source of continual surprise. It was easy enough to see whence this steadiness was derived. In the first place, stocks were not large. Secondly, resale material had been eliminated, and such odd lots as did find their way from time to time into the resale market were so small as to be without effect on the tone, no matter how low the prices at which they were disposed of. Thirdly, the position of crudes and the high prices prevailing for most of them deterred makers of intermediates and colors from cutting prices, as they might have been tempted to do by the dullness, as they would have been unable to replace their goods at anything approaching current selling levels, which had been made possible by the lower cost of raw materials early in the year.

Oversupply of Benzol

Foreign demand for benzol (motor spirit) fell off greatly during the summer. Producers had been depending on this to absorb surplus stocks. By fall these stocks had become unwieldy, and prices were abruptly cut at the beginning of October in order to accelerate the movement. The effect was not immediate, but within a month or so demand had picked up appreciably and one or two large lots which had been waiting for export were sold to France and Belgium. By December, all the exportable surplus had been disposed of and domestic consumption was back to normal. Other crudes had increased in volume, particularly xylene, toluene and naphthalene. Phenol, which had become extremely abundant during the summer, began to get scarce at this time. Producers who had accumulated stocks became discouraged at the failure of consumers to buy in the expected volume, and cut down production drastically. This was in the late summer. No apparent change occurred in the market during the early fall. It was only in November that prices began to move upwards and the shortage was recognized. Makers, however, did not increase production. And at the end of the year phenol was in almost as tight a position as at the beginning, although prices were nowhere near as high.

Crudes, intermediates and colors—the whole market—appeared in excellent shape at the close of the year. Fluctuations in prices during the year had been confined to a few materials. The majority of intermediates and colors were most satisfyingly steady, indicating a soundness of fundamental conditions that could only augur well for the future.

Anthracene (80 percent) did not vary in price throughout the year. Production was maintained along steady lines, but the naturally limited consumption of this material has taught manufacturers not to exceed certain limits. The market was no better than average during the year. Production of anthraquinone was fair, and that is the chief use for anthracene. It did not exceed the limits of the previous year, but as no anthracene to speak of was imported the domestic makers were able to hold the price at 75c. per pound during the whole time.

The prices of benzol were governed altogether by the law of supply and demand. Early in February there was an advance of 5c., making the 90 percent 32c. per gallon. This was the result of a heavy export demand as well as unusual domestic consumption, which brought about a shortage of supplies. By June there had been considerable slacking up of the movement and an accumulation of supplies brought about a reduction in price. Two months later another 2c. was taken off the price and a quotation of 25c. established. The market continued dull until late in the fall. There was an accumulation of stocks altogether unusual. The foreign markets were not taking supplies and domestic consumption showed a marked decrease. The gasoline market had a depressing effect on sales. A further reduction in prices was effected to move the goods which had accumulated and by December the lowest prices in several years were quoted, 21c.

There was much irregularity in the market for naphthalenes. Prices fluctuated greatly during the year. Opening at 6c. per pound, the approach of the consuming season saw a steady augmentation of values. In March, when the movement to consumers is at the height, the price advanced to 9½c. Stocks were in excellent volume for the most part, the advance in the price being due altogether to the seasonable demand. In April the situation was relieved and prices gradually eased off, as was to be expected under the circumstances. At the end of the year prices were 6c., as at the beginning.

Phenol a Sensation

It was a more than sensational year in phenol. All sorts of things happened during the year, everyone tending to advance the price, so that the highest prices on record were paid by consumers in the first half of the year. The trouble began with an unusually heavy demand early in the year, which rapidly exhausted all the available supplies. Production facilities in this country were insufficient to take care of consumers' requirements, and the extremely high tariff kept out the English or made the price so high that it was practically prohibitive. Starting at 30c. per pound in January, the price jumped to 58c. in March. That was the peak. Facilities for the manufacture of synthetic were begun in many quarters and plants were soon in operation. The market yielded from month to month, and got down to 25c. in December, when supplies were in excess of requirements and curtailment of domestic production under way.

There is always a large production of beta naphthol. Last year was no exception. The price of the technical was 24c. per pound early in the year. Manufacturers were too enthusiastic over production and consequently too great quantities were produced. The price began to yield and as material got into the resale market sales were made at such low figures as to completely destroy any profit there was. A price of 20c. was frequent during the late summer. In December, much resale material had been eliminated. Producers suddenly took a firm stand and advanced the price to 25c., which they maintained.

An interruption in the production of ortho-toluidine in August and September resulted in prices going to 18c. per pound. The average selling price is around 13c. to 14c. An excellent export demand in the early spring had failed to disturb the tone. Prices did not exceed those levels until one of the prominent manufacturers was forced out of the market for a time. Immediately production was restored to normal, the price declined to 13c. again.

Phthalic anhydride underwent a readjustment process during the year. Makers were able to effect savings in production costs which allowed of reduction in the price. The price was 40c. per pound during the early part of the year, but in July 30c. was established. Later on 25c. became the prevailing price.

The position of phenol had less effect on the price of resorcinol than might have been expected. Competition between the two domestic makers early in March resulted in a cut of 15c. to $1.35 per pound. The advances in phenol, however, quickly restored the original price of $1.50. Later in the summer $1.40 was established.

The export demand for tolidin base was the most important feature in this intermediate. It attracted more attention than the rather better than average domestic demand did. Shipments were mostly to the Far East, but some went to South America also. The price varied little, ranging from $1.15 to $1.05 per pound.

Coal Tar Colors

There was a most satisfactory improvement in the American coal tar color industry during 1923. The conditions of 1922 were most unsatisfactory. Until the passage of the tariff, there had been no attempt to extend operations. Manufacturers were afraid to go ahead with their plants, installing expensive equipment or even making experiments, for fear that the tariff would not be passed and they would be at the mercy of the foreign competition. It was a recognized fact that it was impossible to produce aniline colors in this country as cheaply as abroad. With the putting into effect of the tariff, which exacted a heavy ad valorem duty based on the domestic selling price, there was incentive to extending operations. During the early part of 1923 considerable attention was given to the foreign markets, and shipments of colors to the Orient and South America were larger than they had ever been. Production was stimulated, plants were put into operation that had not been running before and the outlook was excellent.

Unfortunately for the industry, domestic demand began to fall off late in the spring, shortly before the foreign interest disappeared. The market became dull and remained in a depressed state for the better part of the summer. Textile mills were not operated in the usual way and their requirements in colors were below the average. Prices were appreciably weaker during this period, and sales in some instances were below the cost of production. Most of the colors, however, were pretty steady during the year. The industry had not reached the stage of overproduction and the competition had prevented any false inflation of values.

In the fall, buying was resumed and sales were much heavier than in the spring. Importations of German colors continued, but the quantities were less than in the spring, and the research of certain of the American color makers resulted in putting on the market many colors which had hitherto been imported. The continual evolution of new colors indicated that makers were interested in extending their markets and that gradually all dependence on foreign colors was being removed. The export trade, too, revived. At the end of the year prices were firm in tone, demand in excess of what it had been the year before, and manufacturing conditions of the best.

The extension of the foreign markets could easily have been managed had the American producers showed much ingenuity. The occupation of the Ruhr district of Germany by the French cut off the supply of German dyes temporarily. While the German makers were adjusting themselves to the changed conditions, there was naturally a cessation of shipments from their plants. The Orient turned to America for supplies, which were promptly shipped. But the domestic makers failed to follow up their advantage and did not press for further sales. The attitude was a false one and resulted in much less export business in the fall than would otherwise have been the case. There was no reason why the Far Eastern markets would not have bought all their requirements from Americans rather than revert to the German goods as soon as these were obtainable again. Even Mexico, at the very threshold of the United States, repeatedly inquired for colors, and no attempt was made to exploit the market. Just what effect such a short-sighted policy will eventually have on the export trade in aniline colors remains to be seen. Certainly during 1923 it cost many an order.

Dye Imports During 1923 Compared With Those in 1922, 1921, and 1914

Of sixty-six synthetic dyes imported last year, which are statistically comparable with imports just prior to the war, seven were imported in excess of 50,000 pounds each, according to figures compiled by the Chemical Division, Department of Commerce. Twenty-seven were in excess of 20,000 pounds. Total imports of the fourteen leading dyes exceeded 700,000 pounds. Twenty-two of the sixty-six dyes were of Swiss manufacture, and 31 percent of the quantity came from that country, while practically the entire remainder were manufactured in Germany.

The vat dyes led in the quantity of imports. Indanthrene golden orange G and R, totaling 123,140 pounds, and the two vat pinks (hydron and helindone), 91,067 pounds, while the figures of indanthrene yellow were 83,208 pounds. Among the acid dyes the patent blues and xylene light yellow totaled 120,059 pounds. Of the mordant and chrome colors, alizarin blue black led with 56,332 pounds, followed by alizarin, synthetic, with 35,168 pounds, less than one-fifth of the pre-war imports. In the group of direct colors, diaminogene blue and the two trisulphon browns accounted for over 100,000 pounds. Of the basic dyes, phosphine and rhodamine 6G and B accounted for nearly 95,000 pounds.

Only two of the dyes in the comparable list, namely Schultz 220 Buffalo black PY and Schultz 392 Buffalo direct orange were produced in the United States in 1914, whereas at the present about thirty are now being manufactured. The list indicates the important readjustments necessary for a balanced producing program which will include products of fairly large poundage and value. Many of these dyes are not produced at all in this country, while others are made but not in quantities sufficient to meet domestic requirements.

A further examination of the import figures for the year prior to 1923 reveals the recent increased consumption of faster dyes and the demand for certain new types which possess special advantages, such as economy of application, or fastness. The reduced imports in recent years compared with those of 1914 are in most cases due to increased domestic production. An increased import in recent years compared with the pre-war imports points out in many cases a trend to greater consumption even over and above the domestic production.

In commenting on the significaance of the comparisons, the department says:—

In a study of the import data for a particular dye it is highly important to consider the relationships with other similar colors. This is illustrated in the case of indanthrene blue GCD, the most important vat dye other than indigo. Here we have a pre-war import in 1914 of 478,985 pounds and an import of 68,537 pounds in 1923. The reduced import of 201,835 pounds in 1921 is due in part to the increased domestic production. In 1922, however, the imports receded to 16,802 pounds. This is due not alone to a 200 percent increase in the domestic production for that year, but also to the importation of 239,085 pounds of indanthrene blue BCS. The latter is similar to indanthrene blue GCD, possessing, however, greater fastnesses to chlorine, and it was substituted to a considerable extent for the GCD brand in the cotton-dyeing industry. In 1923 the imports of BCS fell to 12,240 pounds. The BCS brand was produced in quantity in

the United States in 1922. It is further probable that the large import of BCS in 1922 was partly carried over to 1923, and that the combined production and importation of the BCS brand directly influenced the imports as well as the production of GCD in 1922. The imports of the GCD receded from 201,835 pounds in 1921 to 16,802 pounds in 1922. In 1923, however, imports of the GCD increased to 68,537 pounds. Of the total imports of indanthrene blue GCD through the port of New York during 1923, 16 percent came from Italy, and 10 percent of all dyes imported were shipped from that country. The significance of this can be more readily appreciated by a brief review of the reparation dye deliveries.

From the 50 percent stocks on hand in the German dye plants as of August 15, 1919 (totaling 10,761,361 kilos), subject to Reparation Commission's option, 5,200 tons were withdrawn from immediate delivery. Of these, Italy received 700 tons, while the United States and Great Britain received each 1,500 tons; France, 1,000, and Belgium, 500 tons. The remainder of the stock was distributed on the basis of the pre-war consumption modified to take into account new conditions and home production. Italy received 7 percent of the GCD blue, compared with the United States, 55 percent, and 13 percent of the other vat dyes, compared with 39 percent for the United States. The total dye deliveries from the stocks on hand to the allied and associated governments were 9,889,650 kilos.

During the period of the United States' participation, the option for the delivery of 25 percent of the German daily production accorded no GCD blue to Italy and only 9 percent of the other vat dyes, while the United States received 60 percent of GCD blue and 42 percent of other vats.

After the cessation of the deliveries to the United States the percentages accorded to Italy, France and Belgium showed a conspicuous increase. For the other vat dyes, Italy and France each received 20 percent, Belgium 10 percent, and Great Britain 50 percent.

According to the report of the Reparation Commission, Italy received up to December, 1922, 4,241,832 kilos of all dyes out of a total delivery by Germany of 22,689,775 kilos. Italy ranked second to Great Britain, the latter receiving 6,159,583 kilos of all dyes. These reparation figures are of interest in a consideration of the possible imports of reparation dyes from Italy and France during 1924, in view of the renewed deliveries of the I. G. to the different allied countries.

The following list shows dyes of each class according to method of application, imported in largest quantity during the calendar year 1923, compared with imports in 1922, 1921, and the fiscal year 1914:—

Acid Dyes

Schultz No.	Class and name of dye.	Pounds 1923.[1]	1922.[2]	1921.[3]	1914.[3]
543	Patent blue	62,674	49,136	42,708	198,228
22	Xylene light yellow	46,388	12,937	60,422	23,074
	Alizarin rubinol	42,967	26,457	.....	10,917
220	Palatine black	33,500	11,436	14,850	299,274
506	Erioglaucine	31,913	25,852	16,004	66,526
265	Sulphon cyanine black	19,511	14,859	615	69,590
531	Ericyanine	19,202	14,808	16,808	25,091
523	Fast green	18,020	52,498	22,619	14,347
	Polar red	15,031	14,926	2,579	2,821
546	Cyanol	13,328	20,658	14,271	40,015
564	Naphthalene green	11,081	19,298	23,926	22,144
545	Patent blue A	10,997	3,436	16,170	63,744
	Polar yellow	9,264	2,998	.....	782
	Brilliant milling blue	8,430	872	2,175	9,966
	Guinea fast red	8,325	200	.....	5,619

Vat Dyes[4]

849	Indanthrene yellow	83,208	15,507	49,609	12,683
842	Indanthrene blue G C D	68,537	16,802	201,835	478,980
761	Indanthrene golden orange R	67,571	78,145	56,390	50,496
760	Indanthrene golden orange G	55,569	73,305	33,423	20,092
	Hydron pink	48,078	20,250	.....	.....
869	Algol brown B	47,348	16,778	6,640	1,496
901	Ciba violet B	46,219	131,661	21,987	19,830
	Helindone pink B R	42,959	40,668	.....	.....
888	Indanthrene blue R S	40,105	39,909	28,908	187,379
907	Ciba scarlet	37,097	33,246	10,696	22,265
919	Ciba bordeaux B	36,596	33,621	4,625	899
765	Indanthrene green B	35,012	57,444	6,932	122,285
840	Indanthrene blue 3 G	24,532	24,992	19,715	6,120
919	Helindone red 3 B	16,403	32,819	17,566	27,874
	Indanthrene blue B C S	12,240	239,085	.....	.....

Mordant and Chrome Dyes

862	Alizarin blue black	56,332	22,277	43,277	54,706
778	Alizarin, synthetic	35,168	27,086	136,283	202,392
637	Gallamine blue	26,852	29,237	15,179	2,756
858	Alizarin saphirol B	25,540	46,596	28,606	14,305
854	Alizarin viridine F F	15,996	25,910	9,499	.....
865	Alizarin direct green G	14,985	11,659	36,534	2,000
	Acid alizarin grey	12,865	7,555	2,818	.....
	Omega chrome brown	11,502	8,570	5,486	.....
	Eriochrome flavine A	11,485	12,292	110	.....

Direct Dyes

273	Diaminogene blue	64,139	33,798	19,182	8,308
449	Trisulphon brown	26,484	45,697	38,558	16,781
358	Diphenyl red	17,405	33,945	4,036	14,305
457	Trisulphon brown G G	15,268	37,648	22,872	7,562
	Chlorantine fast brown	13,513	7,715	4,589	.....
456	Benzo fast blue	13,048	6,997	3,768	100,495
392	Toluylene orange	10,928	36,920	523	67,032
319	Diamine scarlet	9,619	14,137	12,399	41,175
	Diamine fast orange	9,457	8,719	6,261	17,387
	Diazo sky blue	8,859	14,067	6,892	6,150
	Chlorantine fast orange	8,708	.....	2,348	.....
	Zambesi black	8,000	3,000	1,752	629,359

Sulphur Dyes

	Eclipse brown	10,000	35,991	21,248	4,393
747	Thional brown G	9,228	.....	.....	110
726	Pyrogene blue	8,929	24,251	11,718	10,934
	Thional yellow	7,306	26,682	17,704	.....
746	Katigene green	4,234	11,397	6,543	63,929

Basic Dyes

Schultz No.	Class and name of dye.	Pounds 1923.[1]	1922.[2]	1921.[3]	1914.[3]
606	Phosphine	36,150	51,711	21,325	168,225
571	Rhodamine 6 G	30,352	13,545	10,069	37,515
573	Rhodamine B	28,464	5,077	10,890	59,354
618	Thioflavine T	15,409	6,765	7,297	35,224
603	Acridine orange	8,454	711	1,613	2,336
608	Euchrysine	7,198	3,476	872	15,403
663	New methylene blue	6,343	2,060	4,329	30,392
661	Thionine blue	5,849	2,746	421	18,618
500	Setopaline	5,633	2,824	.....	923
681	New fast gray	5,315	3,628	2,296	29,507

[1] Preliminary figures, 1923, imports through the port of New York.
[2] Tariff Commission census.
[3] Norton dye census.
[4] The figures for the years 1923, 1922 and 1921 are on a single strength basis. The totals for 1914 are not reduced to a uniform basis, but represent the numerical total of paste and powder forms.

German Dye Production in 1923 By Pounds, Factories, Groups

Factory.	January.	February.	March.	April.	May.	June.	Total, Jan.-June.
Wulfing, Dahl & Co., Barmen	52,254	73,243	39,873	52,536	55,598	29,251	302,755
Aktien-Gesellschaft, Berlin	1,836,022	1,760,976	2,174,472	1,451,341	1,351,179	1,397,316	9,971,306
Kalle & Co., Biebrich	612,648	618,667	535,974	219,188	136,858	499,162	2,622,447
Carl Jager, Dusseldorf	38,095	24,886	19,141	23,470	15,417	21,640	142,649
Cassella & Co., Frankfort A. M.	2,464,898	2,470,890	2,629,387	2,377,063	1,632,962	1,960,551	13,535,751
Griesheim-Elektron Griesheim	512,617	502,998	730,532	378,303	493,927	715,151	3,333,528
M. L. & B. Hoechst	4,889,817	1,435,087	228,245	.....	.....	576,400	7,129,549
Bayer & Co., Leverkusen	3,525,491	3,251,988	2,652,318	3,114,012	2,910,749	3,089,680	18,544,238
Badische, Ludwigshafen	5,293,359	5,042,031	3,535,056	1,346,444	419,856	131,111	15,767,857
Leonhardt & Co., Muhlheim	123,657	182,793	118,589	89,857	71,279	57,578	593,753
Weiler-ter-Meer, Uerdingen	733,778	516,438	513,313	408,567	328,628	384,314	2,885,038
Totals	20,082,636	15,829,997	13,176,900	9,460,731	7,416,453	8,862,154	74,828,871

Factory.	July.	August.	September.	October.	November.	December.	Total, July-Dec.
Wulfing, Dahl & Co., Barmen	61,283	55,906	12,919	44,370	70,875	52,896	298,249
Aktien-Gesellschaft, Berlin	1,957,367	1,052,191	1,393,946	1,988,853	1,014,745	1,719,120	9,128,222
Kalle & Co., Biebrich	354,914	369,846	365,886	377,802	213,013	317,376	1,998,837
Carl Jager, Dusseldorf	17,811	30,985	10,083	14,001	8,923	8,816	90,621
Cassella & Co., Frankfort A. M.	1,955,000	1,769,029	1,588,699	1,692,469	1,769,821	1,683,856	10,458,874
Griesheim-Elektron Griesheim	582,453	755,076	800,061	748,739	460,478	414,352	3,761,159
M. L. & B. Hoechst	182,073	867,997	697,462	1,380,130	2,542,830	3,473,504	9,143,996
Bayer & Co., Leverkusen	3,129,438	2,987,106	1,932,304	2,170,749	2,817,558	1,754,384	14,791,539
Badische, Ludwigshafen	418,765	1,521,439	1,985,421	3,466,892	5,150,420	5,501,184	18,044,121
Leonhardt & Co., Muhlheim	44,978	44,976	70,198	83,943	76,974	52,896	373,965
Weiler-ter-Meer, Uerdingen	328,205	189,015	290,197	415,598	321,402	405,536	1,949,953
Totals	9,032,287	9,643,566	9,147,178	12,383,546	14,447,039	15,383,920	70,037,536

Group.	January.	February.	March.	April.	May.	June.	Total, Jan.-June.
I	1,264,947	1,024,259	871,428	494,349	253,264	209,035	4,117,282
II	5,780,412	2,488,112	1,069,825	60,878	47,740	576,400	10,023,367
III	356,691	340,508	365,931	267,371	268,532	236,396	1,835,419
IV	.....	2,860	10,666	.....	1,434	.....	14,960
V	285,313	215,794	172,277	138,618	172,207	177,619	1,161,828
VI	3,921,818	3,686,609	3,320,637	2,506,690	2,407,477	2,750,096	18,593,327
VII	371,606	305,931	527,146	452,337	157,829	281,222	2,096,071
VIII	2,649,899	2,659,924	2,253,460	1,921,939	1,392,961	1,305,005	12,183,188
IX	998,271	743,063	788,392	741,471	705,645	709,800	4,686,642
X	961,003	840,226	769,295	546,382	298,109	270,256	3,685,271
XI	2,917,138	2,892,958	2,549,571	2,026,049	1,566,883	2,098,553	14,051,152
XII	575,538	629,753	478,272	304,647	144,372	247,782	2,380,364
Totals	20,082,636	15,829,997	13,176,900	9,460,731	7,416,453	8,862,154	74,828,871

Group.	July.	August.	September.	October.	November.	December.	Total, July-Dec.
I	366,854	220,334	763,418	865,920	996,284	1,200,688	4,473,498
II	27,086	982,863	985,257	2,534,488	4,192,584	4,919,328	13,641,606
III	236,676	201,811	205,806	232,822	964,601	661,200	2,503,006
IV	.....	.....	3,212	21,525	72,932	44,080	141,769
V	140,518	138,837	115,218	153,041	244,139	317,376	1,109,129
VI	2,627,292	2,607,148	1,988,175	2,672,182	2,048,587	1,736,752	13,680,136
VII	337,684	347,601	202,937	214,500	243,214	211,584	1,557,520
VIII	1,487,790	1,521,103	1,190,666	2,247,972	1,432,939	1,807,280	8,687,752
IX	720,219	627,431	382,140	664,734	681,402	493,696	3,569,622
X	325,652	277,639	393,554	704,026	703,674	758,176	3,162,721
XI	2,522,978	2,401,627	2,683,718	2,769,114	2,002,598	2,556,640	14,936,675
XII	239,538	317,170	233,077	303,222	863,975	617,720	2,574,102
Totals	9,032,287	9,643,566	9,147,178	12,383,546	14,447,039	15,383,920	70,037,536

Coal Tar Products: Record of Prices

Basic Products

Anthracene, 80 Percent

In December, 1919, the price was $1 per pound.

	Per pound 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.75	$0.75	$0.75	$0.75
February	.75	.75	.75	.75
March	.75	.75	.75	.75
April	.75	.75	.75	.75
May	.75	.75	.75	.75
June	.75	.75	.75	.75
July	.75	.75	.75	.75
August	.75	.75	.75	.75
September	.75	.75	.75	.75
October	.75	.75	.75	.75
November	.75	.75	.75	.75
December	.75	.75	.75	.75
Year	.75	.75	.75	.75

Benzol (Benzene), 90 Percent

In March, 1916, the price was 90c. per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.27	$0.27	$0.27	$0.27
February	.27	.27	.32	.27
March	.27	.27	.32	.32
April	.27	.27	.32	.32
May	.27	.27	.27	.27
June	.27	.27	.25	.25
July	.27	.27	.25	.25
August	.27	.27	.25	.25
September	.27	.27	.25	.25
October	.27	.27	.21	.21
November	.27	.27	.21	.21
December	.27	.27	.21	.21
Year	.27	.27	.32	.21

Creosote Oil, 25 Percent

In July, 1918, the price was 55c. per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.26¼	$0.26½	$0.30	$0.30
February	.26¾	.24	.30	.30
March	.24	.24	.35	.30
April	.24	.23	.35	.35
May	.23	.23	.33	.33
June	.23	.23	.33	.33
July	.23	.23	.33	.33
August	.23	.23	.33	.33
September	.23	.23	.34	.34
October	.23	.23	.34	.34
November	.23	.23	.34	.34
December	.23	.23	.34	.34
Year	.26¼	.23	.35	.30

Cresol, U. S. P.

In January, 1917, the price was $1.50 per pound.

	Per pound 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14	$0.14	$0.27	$0.27
February	.14	.14	.27	.27
March	.14	.12	.27	.25
April	.12	.12	.25	.25
May	.12	.12	.25	.25
June	.12	.12	.25	.25
July	.12	.12	.25	.25
August	.12	.12	.25	.25
September	.12	.12	.25	.25
October	.14	.12	.25	.25
November	.14	.14	.25	.25
December	.14	.14	.25	.25
Year	.14	.12	.27	.25

Naphtha, Solvent

In January, 1917, the price was 30c. per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.25	$0.25	$0.27	$0.27
February	.25	.25	.27	.27
March	.25	.25	.27	.27
April	.25	.25	.27	.27
May	.25	.25	.27	.27
June	.27	.27	.27	.27
July	.27	.27	.27	.27
August	.27	.27	.27	.27
September	.27	.27	.27	.27
October	.27	.27	.27	.27
November	.27	.27	.27	.27
December	.27	.27	.27	.27
Year	.27	.25	.27	.27

Naphthalene, Flake

In 1901 the price was 2¾c. per pound; October 18, 1911, 2½c.; 1913, 2¼c.; 1916, March, 16c.

	Per pound 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.06½	$0.06½	$0.06	$0.05¾
February	.06½	.06½	.07½	.06
March	.06½	.06	.09½	.07½
April	.06½	.06	.09½	.09½
May	.06¼	.06	.09	.09
June	.06¼	.06¼	.09	.08¼
July	.06¼	.06	.08	.08
August	.06	.06	.08	.07
September	.06	.06	.07	.06¾
October	.06	.06	.06¾	.06¾
November	.06	.05¾	.06½	.06½
December	.05¾	.05¾	.06	.06
Year	.06½	.05¾	.09½	.06

Phenol, U. S. P.

On July 10, 1873, the price was 55c. per pound; October 18, 1881, 40c.; 1891, 12c.; 1901, 23c.; 1911, 15c.; 1913, 8½c.; 1918, February, 18c.

	Per pound 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.11½	$0.11	$0.33	$0.30
February	.12	.11½	.38	.33
March	.12	.12	.45	.38
April	.13	.12	.58	.52
May	.12	.12	.52	.50
June	.14	.12½	.50	.42
July	.12	.12	.40	.32
August	.18	.16	.30	.28
September	.20	.18	.28	.28
October	.28	.21	.28	.26
November	.35	.30	.26	.26
December	.35	.35	.25	.25
Year	.35	.11	.58	.25

Toluene

In February, 1918, the price was $6 per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.30	$0.30	$0.30	$0.30
February	.30	.30	.30	.30
March	.30	.30	.30	.30
April	.30	.30	.30	.30
May	.30	.30	.30	.30
June	.30	.30	.30	.30
July	.30	.30	.30	.30
August	.30	.30	.30	.30
September	.30	.30	.30	.30
October	.30	.30	.26	.26
November	.30	.30	.26	.26
December	.30	.30	.26	.26
Year	.30	.30	.30	.26

Xylene, Pure

In February, 1917, the price was $1.20 per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.45	$0.43	$0.45	$0.45
February	.45	.45	.45	.45
March	.45	.45	.45	.45
April	.45	.45	.45	.45
May	.45	.45	.65	.65
June	.45	.45	.65	.65
July	.45	.45	.65	.60
August	.45	.45	.60	.60
September	.45	.45	.60	.60
October	.45	.45	.60	.60
November	.45	.45	.60	.60
December	.45	.45	.60	.55
Year	.45	.43	.65	.45

Acids

Acid, Benzoic, Technical

On October 18, 1871, the price was 80c. per ounce; 1881, 22c.; 1891, 8c.; 1901, 12½c.; 1911, 11¼c.; 1913, 23c. per pound; 1916, December, $9.

	Per pound 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.60	$0.60	$0.72	$0.72
February	.60	.60	.72	.72
March	.65	.60	.72	.72
April	.65	.65	.72	.72
May	.55	.55	.72	.72
June	.55	.55	.77	.72
July	.55	.55	.72	.70
August	.60	.60	.70	.70
September	.70	.60	.70	.70
October	.70	.68	.70	.70
November	.68	.68	.70	.65
December	.72	.70	.65	.65
Year	.72	.55	.77	.65

Acid, Cresylic, 97 to 99 Percent

In August, 1918, the price was $1.25 per gallon.

	Per gallon 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.65	$0.65	$1.25	$1.25
February	.65	.65	1.50	1.25
March	.65	.65	1.45	1.35
April	.58	.56	1.40	1.25
May	.56	.56	1.25	1.20
June	.56	.56	1.20	1.10
July	.56	.56	1.10	1.05
August	.56	.56	1.00	1.00
September	.56	.56	1.00	1.00
October	.75	.56	.90	.80
November	.85	.85	.80	.80
December	1.00	.95	.80	.78
Year	1.00	.50	1.50	.78

Acid H

In August, 1918, the price was $3.40 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.20	$1.00	$0.75	$0.75
February	1.00	1.00	.75	.75
March	1.00	.90	.80	.75
April	.90	.85	.80	.80
May	.85	.85	.80	.80
June	.80	.75	.80	.80
July	.80	.80	.80	.80
August	.80	.75	.80	.75
September	.75	.75	.75	.75
October	.75	.75	.75	.75
November	.75	.75	.75	.75
December	.75	.75	.75	.75
Year	1.20	.75	.80	.75

Acid, Picric

In August, 1881, the price was 45c. per pound; 1891, 52½c.; 1901, 40c.; 1911, 55c.; 1913, 50c.; 1916, May, $1.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.20	$0.20	$0.20
February	.20	.20	.20	.20
March	.20	.20	.20	.20
April	.20	.20	.20	.20
May	.20	.20	.20	.20
June	.20	.20	.20	.20
July	.20	.20	.20	.20
August	.20	.20	.20	.20
September	.20	.20	.20	.20
October	.20	.20	.20	.20
November	.20	.20	.20	.20
December	.20	.20	.20	.20
Year	.20	.20	.20	.20

Acid, Salicylic, Technical

On August 1, 1881, the price was $1.40 per pound; 1891, $1.12; 1901, 39½c.; 1911, 32c.; 1913, 25c.; 1916, April, $4.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.22	$0.22	$0.37	$0.37
February	.24	.22	.42	.37
March	.24	.24	.42	.42
April	.26	.24	.47	.47
May	.24	.24	.47	.47
June	.24	.23	.47	.37
July	.25	.25	.35	.35
August	.26	.26	.33	.33
September	.26	.26	.33	.33
October	.29	.26	.33	.33
November	.37	.32	.33	.33
December	.37	.37	.33	.33
Year	.37	.22	.47	.33

Acid, Sulphanilic

In December, 1916, the price was 45c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.26	$0.26	$0.17	$0.17
February	.26	.26	.17	.17
March	.26	.24	.17	.17
April	.24	.24	.18	.18
May	.24	.22	.18	.18
June	.22	.22	.18	.18
July	.22	.22	.18	.18
August	.22	.22	.18	.18
September	.22	.22	.18	.17
October	.22	.20	.17	.17
November	.17	.17	.17	.17
December	.17	.17	.17	.17
Year	.26	.17	.18	.17

Intermediates

Alphanaphthol, Crude

In December, 1917, the price was $1.25 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.00	$1.00	$0.87	$0.75
February	1.00	1.00	.75	.75
March	1.00	1.00	.75	.75
April	1.00	1.00	.60	.60
May	1.00	1.00	.60	.60
June	1.00	1.00	.60	.60
July	1.00	.90	.60	.60
August	.87	.87	.60	.60
September	.87	.87	.60	.60
October	.87	.87	.60	.60
November	.87	.87	.60	.60
December	.87	.87	.60	.60
Year	1.00	.87	.87	.60

Alphanaphthylamine

In January, 1917, the price was $1.35 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.27	$0.27	$0.27	$0.27
February	.30	.27	.30	.27
March	.30	.30	.33	.30
April	.30	.30	.38	.35
May	.30	.30	.38	.35
June	.30	.28	.35	.35
July	.30	.30	.35	.35
August	.30	.30	.35	.35
September	.30	.28	.35	.35
October	.28	.28	.35	.35
November	.28	.28	.35	.35
December	.28	.27	.35	.35
Year	.30	.27	.38	.27

Aniline Oil

On August 16, 1881, the price was 26c. per pound; October 18, 1891, 25c.; 1901, 9c.; 1911, 10¾c.; 1913, 10½c.; 1916, December, 95c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.17	$0.16	$0.16½	$0.16½
February	.16	.15½	.16½	.16½
March	.16	.15	.16½	.16½
April	.15	.15	.16½	.16½
May	.15	.15	.16½	.16
June	.14	.12½	.16	.16
July	.14	.14	.16	.16
August	.14	.14	.16	.16
September	.16	.14	.16	.16
October	.16	.16	.16	.16
November	.16	.16	.16	.16
December	.16	.16	.16	.16
Year	.17	.12½	.16½	.16

Aniline Salt

On August 16, 1881, the price was 36c. per pound; October 18, 1891, 21c.; 1901, 8¼c.; 1911, 9½c.; 1913, 8⅝c.; 1916, December, $1.35.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.24	$0.24	$0.24	$0.24
February	.24	.24	.24	.24
March	.24	.22	.24	.24
April	.22	.22	.24	.24
May	.22	.22	.24	.24
June	.22	.22	.24	.22
July	.22	.22	.24	.22
August	.22	.22	.22	.22
September	.22	.21	.22	.22
October	.23	.21	.23	.23
November	.24	.24	.23	.23
December	.24	.24	.23	.23
Year	.24	.21	.24	.22

Betanaphthylamine, Technical

In January, 1918, the price was $2 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.00	$1.00	$0.95	$0.95
February	1.00	1.00	.95	.72
March	1.00	1.00	.72	.72
April	1.00	.95	.72	.72
May	.95	.95	.72	.72
June	.95	.95	.72	.72
July	.95	.95	.72	.72
August	.95	.95	.72	.72
September	.95	.95	.72	.72
October	.95	.95	.72	.72
November	.95	.95	.72	.72
December	.95	.95	.72	.72
Year	1.00	.95	.95	.72

Betanaphthol, Sublimed

In February, 1917, the price was $1.05 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.65	$0.65	$0.55	$0.53
February	.65	.65	.55	.55
March	.65	.50	.55	.55
April	.50	.50	.55	.55
May	.50	.50	.55	.55
June	.54	.50	.55	.55
July	.54	.54	.55	.55
August	.50	.50	.55	.55
September	.50	.50	.55	.55
October	.54	.50	.55	.55
November	.54	.54	.55	.55
December	.54	.54	.55	.55
Year	.65	.50	.55	.53

Betanaphthol, Technical

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.29	$0.28	$0.25	$0.24
February	.28	.27	.24	.24
March	.27	.26	.24	.22
April	.26	.25	.23	.23
May	.25	.25	.23	.23
June	.24	.23	.23	.21
July	.24	.24	.21	.21
August	.23	.22	.20	.20
September	.22	.22	.21	.20
October	.22	.22	.21	.21
November	.23	.22	.21	.21
December	.24	.24	.26	.21
Year	.29	.22	.26	.20

Benzaldehyde, Technical

In April, 1918, the price was $5.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.45	$0.45	$0.70	$0.65
February	.45	.45	.70	.70
March	.45	.45	.70	.70
April	.45	.45	.75	.70
May	.50	.45	.75	.75
June	.50	.50	.75	.75
July	.65	.55	.75	.75
August	.65	.65	.75	.75
September	.65	.65	.75	.75
October	.65	.65	.75	.75
November	.65	.65	.75	.75
December	.65	.65	.75	.75
Year	.65	.45	.75	.65

Benzidine Base

In March, 1917, the price was $2.10 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.95	$0.85	$0.85	$0.85
February	.95	.90	.85	.85
March	.90	.85	.85	.82
April	.85	.85	.84	.82
May	.85	.85	.84	.84
June	.85	.85	.84	.84
July	.80	.80	.84	.84
August	.80	.80	.80	.80
September	.85	.80	.80	.80
October	.85	.85	.80	.80
November	.85	.85	.80	.80
December	.85	.85	.80	.80
Year	.95	.80	.85	.80

Benzyl Chloride, 95 to 97 Percent

In May, 1918, the price was $2.70 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.25	$0.25	$0.35	$0.35
February	.25	.25	.35	.35
March	.25	.25	.35	.35
April	.25	.25	.40	.40
May	.25	.25	.40	.40
June	.25	.25	.40	.40
July	.35	.25	.40	.40
August	.35	.35	.40	.40
September	.35	.35	.40	.40
October	.35	.35	.40	.40
November	.35	.35	.40	.40
December	.35	.35	.40	.35
Year	.35	.25	.40	.35

Diethylaniline

In May, 1918, the price was $5.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.90	$0.50	$0.50
February	.90	.90	.50	.50
March	.90	.50	.50	.50
April	.50	.50	.60	.60
May	.50	.50	.60	.60
June	.50	.50	.60	.60
July	.50	.50	.60	.60
August	.50	.50	.60	.60
September	.50	.50	.60	.60
October	.50	.50	.60	.60
November	.50	.50	.60	.60
December	.50	.50	.60	.60
Year	.90	.50	.60	.50

Dimethylaniline

In May, 1920, the price was $1.65 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.40	$0.40	$0.41	$0.41
February	.40	.38	.42	.41
March	.38	.38	.42	.42
April	.38	.36	.42	.42
May	.36	.36	.42	.42
June	.36	.34	.42	.42
July	.34	.32	.42	.42
August	.32	.32	.41	.41
September	.32	.32	.41	.41
October	.36	.32	.41	.41
November	.41	.36	.41	.41
December	.41	.41	.41	.41
Year	.41	.32	.42	.41

Dinitrobenzene

In September, 1917, the price was 50c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.21	$0.21	$0.20	$0.20
February	.21	.21	.20	.20
March	.24	.21	.20	.20
April	.24	.22	.20	.20
May	.22	.22	.20	.20
June	.22	.22	.20	.18
July	.22	.22	.18	.18
August	.22	.22	.18	.18
September	.22	.22	.18	.18
October	.22	.22	.18	.18
November	.20	.20	.18	.18
December	.20	.20	.19	.19
Year	.24	.20	.20	.18

Dinitrochlorbenzene

In January, 1917, the price was 55c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.20	$0.22	$0.22
February	.20	.20	.22	.22
March	.22	.20	.22	.22
April	.22	.22	.22	.22
May	.22	.22	.22	.22
June	.22	.22	.22	.22
July	.22	.22	.22	.22
August	.22	.22	.22	.22
September	.22	.22	.22	.22
October	.22	.22	.22	.22
November	.22	.22	.22	.22
December	.22	.22	.22	.22
Year	.22	.20	.22	.22

Dinitronaphthalene

In February, 1917, the price was 80c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.30	$0.30
February	.30	.30	.30	.30
March	.30	.30	.35	.30
April	.30	.30	.35	.35
May	.30	.30	.35	.35
June	.30	.30	.35	.35
July	.30	.30	.35	.35
August	.30	.30	.35	.35
September	.30	.30	.35	.35
October	.30	.30	.35	.35
November	.30	.30	.35	.32
December	.30	.30	.32	.32
Year	.30	.30	.35	.30

Diphenylamine

In January, 1917, the price was $1.10 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.60	$0.52	$0.50
February	.60	.60	.50	.50
March	.60	.58	.50	.48
April	.58	.57	.48	.48
May	.57	.57	.48	.48
June	.57	.57	.48	.48
July	.57	.55	.48	.48
August	.55	.55	.48	.48
September	.55	.55	.48	.48
October	.55	.52	.48	.48
November	.52	.52	.48	.48
December	.52	.52	.48	.48
Year	.60	.52	.52	.48

Nitrobenzene

On August 16, 1881, the price was 32c. per pound; October 18, 1891, 15c.; 1901, 7¾c.; 1911, 6⅝c.; 1913, 6½c.; 1917, February, 25c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09½	$0.09½	$0.10	$0.10
February	.09½	.09½	.10	.10
March	.10	.09½	.10	.10
April	.09½	.09½	.10	.10
May	.09½	.09½	.10	.10
June	.10	.09½	.10	.10
July	.09½	.09½	.10	.10
August	.10	.09½	.09½	.09½
September	.10	.10	.09½	.09½
October	.10	.10	.09½	.09½
November	.10	.10	.09½	.09½
December	.10	.09½	.10	.09½

Metanitraniline

In December, 1917, the price was $1.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.85	$0.85	$0.72	$0.72
February	.85	.85	.72	.72
March	.85	.80	.72	.72
April	.80	.80	.72	.72
May	.72	.72	.72	.72
June	.72	.72	.72	.72
July	.72	.72	.72	.72
August	.72	.72	.72	.72
September	.72	.72	.72	.72
October	.72	.72	.72	.72
November	.72	.72	.72	.72
December	.72	.72	.72	.72
Year	.85	.72	.72	.72

Metanitroparatoluidine

In September, 1918, the price was $7 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.25	$2.25	$2.25	$2.25
February	2.25	2.25	2.25	2.25
March	2.25	2.25	2.25	2.25
April	2.25	2.25	2.25	2.25
May	2.25	2.25	2.25	2.25
June	2.25	2.25	2.25	2.25
July	2.25	2.25	2.25	2.25
August	2.25	2.10	2.25	2.25
September	2.25	2.25	2.25	2.25
October	2.25	2.25	2.25	2.25
November	2.25	2.25	2.25	2.25
December	2.25	2.25	2.20	2.20
Year	2.25	2.10	2.25	2.20

Metaphenylenediamine

In June, 1917, the price was $2.05 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.05	$1.05	$0.90	$0.90
February	1.00	.85	.90	.90
March	.90	.85	1.00	1.00
April	.90	.90	1.05	1.00
May	.90	.90	1.00	1.00
June	.90	.90	1.00	1.00
July	.90	.85	1.00	1.00
August	.85	.85	.90	.90
September	.85	.85	.90	.90
October	.90	.85	.90	.90
November	.90	.90	.90	.90
December	.90	.90	.90	.90
Year	1.05	.85	1.05	.90

Monoethylaniline

In September, 1918, the price was $1.85 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.10	$1.10	$0.90	$0.90
February	1.10	1.00	.90	.90
March	1.00	1.00	.90	.90
April	1.00	1.00	1.00	.90
May	1.00	1.00	1.00	1.00
June	1.00	.90	1.00	1.00
July	.90	.90	1.00	1.00
August	.90	.90	1.00	1.00
September	.90	.90	1.00	1.00
October	.90	.90	1.00	1.00
November	.90	.90	1.00	1.00
December	.90	.90	1.00	1.00
Year	1.10	.90	1.00	.90

Nitronaphthalene

In May, 1918, the price was 55c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.33	$0.30
February	.30	.30	.33	.33
March	.30	.30	.38	.35
April	.30	.30	.38	.38
May	.30	.30	.35	.35
June	.30	.30	.35	.35
July	.30	.30	.35	.35
August	.30	.30	.30	.30
September	.30	.30	.30	.30
October	.30	.30	.30	.30
November	.30	.30	.30	.30
December	.30	.30	.30	.30
Year	.30	.30	.38	.30

Orthonitrophenol

In October, 1918, the price was $1.70 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.65	$0.60	$0.85	$0.85
February	.65	.65	.85	.85
March	.70	.65	1.00	.85
April	.70	.70	1.25	1.00
May	.70	.70	1.25	1.25
June	.70	.70	1.25	1.25
July	.70	.70	1.25	1.25
August	.70	.70	1.30	1.30
September	.70	.70	1.25	1.25
October	.80	.80	1.25	1.25
November	.85	.80	1.25	1.20
December	.85	.85	1.20	1.20
Year	.85	.60	1.30	.85

Orthonitrotoluene

In January, 1917, the price was 65c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.15	$0.15	$0.10	$0.09
February	.15	.15	.09	.09
March	.15	.12	.09	.09
April	.12	.10	.10	.10
May	.10	.10	.10	.10
June	.10	.10	.10	.10
July	.10	.10	.10	.10
August	.10	.10	.10	.10
September	.10	.10	.10	.10
October	.10	.10	.10	.10
November	.10	.10	.10	.10
December	.10	.10	.10	.10
Year	.15	.10	.10	.09

Orthotoluidine

In March, 1918, the price was $1.25 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.15	$0.14	$0.13
February	.15	.15	.14	.14
March	.15	.15	.14	.14
April	.15	.15	.14	.14
May	.15	.15	.13	.13
June	.15	.15	.13	.13
July	.15	.15	.15	.13
August	.15	.15	.15	.15
September	.15	.15	.18	.16
October	.15	.13	.18	.18
November	.13	.13	.15	.15
December	.14	.14	.15	.13
Year	.20	.13	.18	.13

Paramidophenol, Base

In March, 1918, the price was $5.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.25	$1.25	$1.20	$1.20
February	1.25	1.25	1.20	1.20
March	1.25	1.25	1.30	1.25
April	1.25	1.20	1.50	1.35
May	1.20	1.20	1.50	1.50
June	1.20	1.20	1.50	1.50
July	1.20	1.20	1.50	1.50
August	1.20	1.20	1.35	1.35
September	1.20	1.20	1.35	1.35
October	1.20	1.20	1.35	1.35
November	1.20	1.20	1.35	1.35
December	1.20	1.20	1.35	1.25
Year	1.25	1.20	1.50	1.20

Paranitraniline

In October, 1918, the price was $1.90 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.77	$0.77	$0.73	$0.73
February	.77	.77	.73	.73
March	.77	.75	.75	.73
April	.75	.75	.75	.75
May	.74	.74	.75	.75
June	.74	.74	.75	.75
July	.74	.74	.75	.75
August	.74	.74	.75	.70
September	.74	.73	.70	.70
October	.73	.73	.70	.70
November	.73	.73	.70	.70
December	.73	.73	.70	.70
Year	.77	.73	.75	.70

Paranitroacetanilide

In July, 1918, the price was $1.80 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.55	$0.60	$0.60
February	.60	.60	.60	.60
March	.60	.60	.60	.60
April	.60	.60	.60	.60
May	.60	.60	.60	.60
June	.60	.60	.60	.60
July	.60	.60	.60	.60
August	.60	.60	.60	.55
September	.60	.60	.55	.55
October	.60	.60	.55	.55
November	.60	.60	.55	.55
December	.60	.60	.55	.55
Year	.60	.55	.60	.55

Paranitrophenol

In June, 1918, the price was $1.40 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.70	$0.70	$0.75	$0.70
February	.70	.65	.90	.75
March	.65	.60	1.00	.90
April	.60	.60	.90	.90
May	.70	.65	.90	.90
June	.70	.70	.80	.65
July	.70	.70	.65	.65
August	.75	.75	.65	.65
September	.75	.75	.65	.65
October	.75	.75	.65	.65
November	.75	.75	.65	.65
December	.75	.75	.65	.65
Year	.75	.60	1.00	.65

Paranitrotoluene

In January, 1918, the price was $1.60 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.80	$0.75	$0.46	$0.46
February	.75	.75	.51	.46
March	.75	.65	.51	.51
April	.65	.65	.60	.60
May	.60	.55	.60	.60
June	.55	.55	.60	.60
July	.55	.55	.60	.60
August	.55	.55	.55	.55
September	.55	.55	.55	.55
October	.55	.52	.55	.55
November	.52	.46	.55	.55
December	.46	.46	.55	.55
Year	.80	.46	.60	.46

Paratoluidine

In January, 1918, the price was $2.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.10	$1.10	$0.78	$0.78
February	1.00	1.00	.82	.78
March	1.00	.90	.92	.92
April	.90	.90	.90	.90
May	1.00	.90	.90	.90
June	1.00	1.00	.90	.90
July	.90	.90	.90	.90
August	.90	.90	.90	.90
September	.90	.90	.95	.90
October	.90	.90	.95	.95
November	.95	.85	.95	.95
December	.85	.78	.85	.85
Year	1.10	.78	.95	.78

Phthalic Anhydride

In December, 1917, the price was $6 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.40	$0.40	$0.40	$0.40
February	.40	.40	.40	.40
March	.40	.35	.40	.40
April	.35	.35	.40	.40
May	.35	.35	.40	.35
June	.35	.35	.35	.30
July	.35	.35	.30	.30
August	.35	.35	.25	.25
September	.35	.35	.25	.25
October	.35	.35	.25	.25
November	.35	.35	.25	.25
December	.40	.35	.25	.25
Year	.40	.35	.40	.25

Resorcinol, Technical

In December, 1911, the price was 80c. per pound; 1917, December, $9.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.40	$1.40	$1.50	$1.50
February	1.40	1.25	1.50	1.50
March	1.35	1.25	1.50	1.35
April	1.35	1.35	1.35	1.35
May	1.35	1.35	1.50	1.50
June	1.35	1.35	1.50	1.50
July	1.35	1.35	1.50	1.50
August	1.50	1.35	1.40	1.40
September	1.50	1.50	1.40	1.40
October	1.50	1.50	1.40	1.40
November	1.50	1.50	1.40	1.40
December	1.50	1.50	1.40	1.40
Year	1.50	1.25	1.50	1.35

Tolidin, Base

In June, 1918, the price was $3 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.20	$1.20	$1.15	$1.15
February	1.20	1.20	1.15	1.15
March	1.20	1.20	1.15	1.05
April	1.20	1.15	1.10	1.10
May	1.15	1.15	1.10	1.10
June	1.15	1.15	1.10	1.10
July	1.15	1.15	1.10	1.10
August	1.15	1.15	1.10	1.10
September	1.15	1.15	1.10	1.05
October	1.15	1.15	1.05	1.05
November	1.15	1.15	1.05	1.05
December	1.15	1.15	1.05	1.05
Year	1.20	1.15	1.15	1.05

Xylidine

In January, 1918, the price was 90c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.40	$0.40	$0.42	$0.42
February	.40	.40	.42	.42
March	.40	.40	.42	.42
April	.40	.40	.47	.42
May	.40	.40	.47	.47
June	.42	.40	.47	.47
July	.42	.42	.47	.47
August	.42	.42	.47	.47
September	.42	.42	.47	.47
October	.42	.42	.47	.47
November	.42	.42	.47	.47
December	.42	.42	.47	.47
Year	.42	.40	.47	.42

Coal Tar Colors

Acid Alkali Blue

In March, 1917, the price was $14 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.50	$4.50	$3.50	$3.15
February	4.50	4.50	3.15	3.15
March	4.50	4.50	3.00	3.00
April	4.50	4.50	3.00	3.00
May	4.50	4.50	3.15	3.15
June	4.50	4.50	3.15	3.15
July	4.50	4.50	3.10	3.10
August	4.50	4.50	3.00	3.00
September	4.50	4.50	2.85	2.85
October	4.50	4.50	2.85	2.85
November	4.50	4.00	2.50	2.50
December	4.00	3.50	2.50	2.50
Year	4.50	3.50	3.50	2.50

Acid Black, 10 B

In December, 1918, the price was $2 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.25	$1.00	$0.60	$0.60
February	1.00	1.00	.60	.60
March	1.00	1.00	.55	.50
April	1.00	1.00	.55	.55
May	.85	.85	.60	.60
June	.85	.85	.60	.60
July	.85	.85	.60	.60
August	.85	.85	.60	.60
September	.85	.85	.60	.60
October	.60	.60	.60	.60
November	.55	.55	.60	.60
December	.60	.55	.40	.40
Year	1.25	.55	.60	.40

Acid Blue G

In January, 1918, the price was $12 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.50	$2.50	$2.50	$2.50
February	2.50	2.50	2.25	2.25
March	2.50	2.50	2.25	2.25
April	2.50	2.50	2.25	2.25
May	2.50	2.50	2.25	2.25
June	2.50	2.50	2.25	2.25
July	2.50	2.50	2.25	2.25
August	2.50	2.50	2.25	2.25
September	2.50	2.50	2.25	2.25
October	2.50	2.50	2.25	2.00
November	2.50	2.50	2.00	2.00
December	2.50	2.50	2.00	2.00
Year	2.50	2.50	2.50	2.00

Acid Cyanine B

In November, 1918, the price was $4.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.25	$3.25	$0.70	$0.70
February	3.25	3.25	.70	.65
March	3.25	3.25	.65	.65
April	3.25	3.25	.65	.65
May	3.25	3.25	.70	.70
June	3.00	3.00	.70	.70
July	2.10	2.00	.70	.70
August	1.50	1.00	.65	.60
September	.70	.70	.60	.50
October	.70	.70	.50	.50
November	.70	.70	.50	.50
December	.70	.70	.50	.50
Year	3.25	.70	.70	.50

Acid Eosine B

In January, 1891, the price was 80c. per pound; October 18, 1901, 95c.; 1911, 85c.; 1918, January, $10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.75	$3.75	$3.75	$3.75
February	3.75	3.75	3.50	3.50
March	3.75	3.75	3.50	3.50
April	3.75	3.75	3.50	3.50
May	3.75	3.75	3.75	3.75
June	3.75	3.75	3.75	3.75
July	3.75	3.75	3.75	3.75
August	3.75	3.75	3.75	3.75
September	3.75	3.75	3.75	3.75
October	3.75	3.75	3.50	3.50
November	3.75	3.75	3.50	3.50
December	3.75	3.75	3.50	3.50
Year	3.75	3.75	3.75	3.50

Acid Green G

In December, 1918, the price was $6.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.00	$3.00	$3.00	$3.00
February	3.00	3.00	2.80	2.80
March	3.00	3.00	2.50	2.50
April	3.00	3.00	2.50	2.50
May	3.00	3.00	2.50	2.50
June	3.00	3.00	2.50	2.50
July	3.00	3.00	2.50	2.50
August	3.00	3.00	2.50	2.50
September	3.00	3.00	2.50	2.50
October	3.00	3.00	2.50	2.50
November	3.00	3.00	2.50	2.50
December	3.00	3.00	2.50	2.50
Year	3.00	3.00	3.00	2.50

Acid Metanil Yellow

In August, 1918, the price was $2.40 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.10	$1.10	$0.80	$0.80
February	1.10	1.10	.85	.80
March	1.10	1.10	.80	.80
April	1.10	1.10	.80	.80
May	1.10	1.10	.80	.80
June	.80	.80	.80	.80
July	.80	.80	.80	.80
August	.80	.80	.80	.80
September	.80	.80	.80	.80
October	.80	.80	.80	.80
November	.80	.80	.80	.80
December	.80	.80	.80	.80
Year	1.10	.80	.85	.80

Acid Orange A

In January, 1891, the price was $1.10 per pound; October 18, 1901, 85c.; 1911, 90c.; 1913, $1.20; 1917, August, $1.60.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.55	$0.55	$0.30	$0.30
February	.55	.55	.30	.28
March	.55	.55	.28	.28
April	.55	.55	.28	.28
May	.55	.55	.30	.30
June	.55	.55	.30	.30
July	.35	.35	.30	.30
August	.35	.35	.30	.30
September	.35	.35	.30	.30
October	.35	.35	.25	.25
November	.35	.35	.25	.25
December	.35	.30	.25	.25
Year	.55	.30	.30	.25

Acid Patent Blue

In November, 1917, the price was $22 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$6.50	$6.50	$3.50	$3.50
February	6.50	6.50	3.25	3.25
March	6.50	6.50	3.25	3.25
April	6.50	6.50	3.25	3.25
May	6.50	6.50	3.50	3.50
June	6.50	6.50	3.50	3.50
July	3.50	3.50	3.50	3.50
August	3.50	3.50	3.25	3.25
September	3.50	3.50	3.25	3.25
October	3.50	3.50	3.00	3.00
November	3.50	3.50	3.00	3.00
December	3.50	3.50	3.00	3.00
Year	6.50	3.50	3.50	3.00

Acid Wool Green S

In December, 1917, the price was $8.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.60	$1.60	$1.05	$1.05
February	1.60	1.60	1.05	.95
March	1.25	1.25	.95	.95
April	1.25	1.25	.95	.95
May	1.25	1.25	1.05	.95
June	1.25	1.25	1.05	1.00
July	1.05	1.05	1.00	1.00
August	1.05	1.05	1.00	1.00
September	1.05	1.05	1.00	1.00
October	1.05	1.05	1.00	1.00
November	1.05	1.05	1.00	1.00
December	1.05	1.05	1.00	1.00
Year	1.60	1.05	1.05	.95

Auramine O, Basic

In December, 1918, the price was $5 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$2.00	$1.25	$1.25
February	2.00	2.00	1.25	1.25
March	1.25	1.25	1.25	1.25
April	1.25	1.25	1.25	1.25
May	1.25	1.25	1.25	1.25
June	1.25	1.25	1.25	1.25
July	1.25	1.25	1.25	1.25
August	1.25	1.25	1.25	1.00
September	1.25	1.25	1.00	1.00
October	1.25	1.25	1.00	1.00
November	1.25	1.25	1.00	1.00
December	1.25	1.25	1.00	1.00
Year	2.00	1.25	1.25	1.00

Basic Bismarck Brown R

In January, 1891, the price was 55c. per pound; October 18, 1901, 60c.; 1911, 50c.; 1913, 45c.; 1918, February, $1.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.70	$0.70	$0.60	$0.60
February	.70	.70	.60	.60
March	.70	.70	.60	.60
April	.70	.70	.60	.60
May	.70	.70	.60	.60
June	.60	.60	.60	.60
July	.60	.60	.60	.55
August	.60	.60	.55	.55
September	.60	.60	.55	.55
October	.60	.60	.55	.55
November	.60	.60	.55	.55
December	.60	.60	.55	.55
Year	.70	.60	.60	.55

Basic Fuchsine Crystals

In January, 1891, the price was $1 per pound; October 18, 1901, $1.85; 1911, $2.40; 1913, $3; 1918, March, $11.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.50	$3.50	$3.00	$3.00
February	3.50	3.50	3.00	3.00
March	3.50	3.50	2.85	2.85
April	3.00	3.00	2.85	2.85
May	3.00	3.00	3.00	2.85
June	3.00	3.00	3.00	3.00
July	3.00	3.00	3.00	3.00
August	3.00	3.00	3.00	3.00
September	3.00	3.00	3.00	3.00
October	3.00	3.00	3.00	3.00
November	3.00	3.00	3.00	3.00
December	3.00	3.00	3.00	3.00
Year	3.50	3.00	3.00	2.85

Basic Malachite Crystals

In January, 1918, the price was $11.75 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.10	$2.10	$1.60	$1.60
February	2.10	2.10	1.50	1.50
March	2.10	2.10	1.50	1.50
April	1.60	1.60	1.50	1.50
May	1.60	1.60	1.50	1.50
June	1.60	1.60	1.50	1.50
July	1.60	1.60	1.50	1.50
August	1.60	1.60	1.25	1.25
September	1.60	1.60	1.25	1.25
October	1.60	1.60	1.25	1.25
November	1.60	1.60	1.25	1.25
December	1.60	1.60	1.25	1.25
Year	2.10	1.60	1.60	1.25

Basic Methyl Violet Base, Conc.

In December, 1917, the price was $8.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.25	$2.25	$2.25	$2.25
February	2.25	2.25	2.25	2.25
March	2.25	2.25	2.00	2.00
April	2.25	2.25	2.00	2.00
May	2.25	2.25	2.25	2.00
June	2.25	2.25	2.25	2.25
July	2.00	2.00	2.25	2.25
August	2.00	2.00	2.50	2.25
September	2.00	2.00	2.50	2.50
October	2.00	2.00	2.50	2.50
November	2.25	2.25	2.50	2.50
December	2.25	2.25	2.25	2.25
Year	2.25	2.00	2.50	2.00

Basic Methylene Blue, Ex-Conc.

In January, 1891, the price was $2.50 per pound; 1918, January, $4.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$2.00	$1.85	$1.85
February	2.00	2.00	1.85	1.75
March	2.00	2.00	1.75	1.75
April	2.00	2.00	1.75	1.75
May	2.00	2.00	1.85	1.75
June	2.00	2.00	1.85	1.85
July	2.00	2.00	1.85	1.85
August	1.85	1.85	1.85	1.85
September	1.85	1.85	1.85	1.85
October	1.85	1.85	1.85	1.85
November	1.85	1.85	1.85	1.85
December	1.85	1.85	1.85	1.85
Year	2.00	1.85	1.85	1.75

Basic Rhodamine B

In December, 1918, the price was $14 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$2.00	$2.00	$2.00
February	2.00	2.00	2.00	2.00
March	2.00	2.00	2.00	2.00
April	2.00	2.00	2.00	2.00
May	2.00	2.00	2.00	2.00
June	2.00	2.00	2.00	2.00
July	2.00	2.00	2.00	2.00
August	2.00	2.00	2.00	2.00
September	2.00	2.00	2.00	2.00
October	2.00	2.00	2.00	2.00
November	2.00	2.00	2.00	2.00
December	2.00	2.00	2.00	2.00
Year	2.00	2.00	2.00	2.00

Basic Safranine B

In January, 1918, the price was $7.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.50	$2.50	$2.50	$2.50
February	2.50	2.50	2.50	2.35
March	2.50	2.50	2.35	2.35
April	2.50	2.50	2.35	2.35
May	2.50	2.50	2.50	2.35
June	2.50	2.50	2.50	2.50
July	2.50	2.50	2.50	2.50
August	2.50	2.50	2.50	2.50
September	2.50	2.50	2.50	2.50
October	2.50	2.50	2.50	2.00
November	2.50	2.50	2.00	2.00
December	2.50	2.50	2.00	2.00
Year	2.50	2.50	2.50	2.00

Basic Victoria Blue Base

In January, 1918, the price was $15 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$5.50	$5.50	$3.75	$3.75
February	5.50	5.50	3.75	3.75
March	5.50	5.50	3.75	3.75
April	5.50	5.50	3.75	3.75
May	5.50	5.50	3.75	3.75
June	5.00	5.00	3.75	3.75
July	4.75	4.50	3.75	3.75
August	4.50	4.50	3.50	3.50
September	4.00	4.00	3.50	3.50
October	4.00	4.00	3.50	3.50
November	4.00	4.00	3.50	3.50
December	4.00	4.00	3.50	3.50
Year	5.50	4.00	3.75	3.50

Chrome Green

In January, 1918, the price was $3.75 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.50	$1.50	$1.50	$1.50
February	1.50	1.50	1.40	1.40
March	1.50	1.50	1.40	1.40
April	1.50	1.50	1.40	1.40
May	1.50	1.50	1.50	1.40
June	1.50	1.50	1.50	1.50
July	1.50	1.50	1.50	1.50
August	1.50	1.50	1.50	1.50
September	1.50	1.50	1.65	1.50
October	1.50	1.50	1.65	1.65
November	1.50	1.50	1.65	1.65
December	1.50	1.50	1.65	1.65
Year	1.50	1.50	1.65	1.40

Chrome Yellow G

In January, 1918, the price was $2 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.65	$0.65	$0.65	$0.65
February	.65	.65	.65	.65
March	.65	.65	.65	.65
April	.65	.65	.70	.65
May	.65	.65	.65	.65
June	.65	.65	.65	.65
July	.65	.65	.65	.65
August	.65	.65	.65	.65
September	.65	.65	.65	.65
October	.60	.60	.65	.65
November	.60	.60	.65	.65
December	.65	.65	.65	.65
Year	.65	.60	.70	.65

Direct Black

In November, 1917, the price was $3.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.75	$0.75	$0.40	$0.40
February	.75	.75	.40	.40
March	.75	.75	.35	.35
April	.55	.55	.35	.33
May	.40	.40	.40	.35
June	.40	.40	.40	.40
July	.40	.40	.40	.40
August	.40	.40	.40	.40
September	.40	.40	.40	.40
October	.40	.40	.40	.40
November	.40	.40	.40	.40
December	.40	.40	.40	.40
Year	.75	.40	.40	.33

Direct Bordeaux

In January, 1918, the price was $2 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.75	$1.75	$1.75	$1.75
February	1.75	1.75	1.75	1.75
March	1.60	1.60	1.60	1.60
April	1.75	1.75	1.60	1.60
May	1.75	1.75	1.75	1.60
June	1.75	1.75	1.75	1.75
July	1.50	1.50	1.75	1.75
August	1.50	1.30	1.75	1.75
September	1.60	1.60	1.50	1.50
October	1.75	1.75	1.50	1.50
November	1.75	1.75	1.50	1.50
December	1.75	1.75	1.50	1.50
Year	1.75	1.30	1.75	1.50

Direct Congo Red 4-B, Conc.

In January, 1918, the price was $2.25 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.90	$0.45	$0.45
February	.90	.90	.45	.40
March	.90	.90	.40	.40
April	.90	.90	.40	.40
May	.95	.95	.40	.40
June	.95	.95	.40	.40
July	.60	.60	.40	.40
August	.60	.50	.40	.40
September	.50	.45	.40	.40
October	.45	.45	.40	.40
November	.40	.40	.40	.40
December	.50	.45	.40	.40
Year	.95	.40	.45	.40

Direct Green B

In January, 1918, the price was $2.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.25	$1.25	$0.75	$0.75
February	1.25	1.25	.75	.75
March	1.15	1.15	.75	.75
April	1.15	1.15	.75	.75
May	1.15	1.15	.75	.75
June	.85	.85	.75	.75
July	.85	.80	.75	.75
August	.80	.80	.75	.75
September	.75	.75	.75	.75
October	.75	.75	.75	.75
November	.75	.75	.75	.75
December	.75	.75	.75	.75
Year	1.25	.75	.75	.75

Direct Orange

In January, 1918, the price was $2.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.90	$0.90	$0.90
February	.90	.90	.90	.90
March	.90	.90	.80	.80
April	.90	.90	.85	.85
May	.90	.90	.90	.85
June	.90	.90	.90	.90
July	.90	.90	.90	.90
August	.90	.90	.80	.80
September	.90	.90	.80	.80
October	.90	.90	.80	.80
November	.90	.90	.80	.80
December	.90	.90	.80	.80
Year	.90	.90	.90	.80

Sulphur Green

In January, 1918, the price was $1.50 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.00	$1.00	$0.90	$0.95
February	1.00	1.00	.95	.95
March	1.00	1.00	.95	.95
April	1.00	1.00	1.00	1.00
May	1.00	1.00	1.00	.95
June	1.00	1.00	.95	.95
July	1.00	1.00	.95	.95
August	.95	.95	.75	.75
September	.95	.95	.75	.75
October	.95	.95	.75	.75
November	.95	.95	.85	.75
December	.95	.95	.85	.85
Year	1.00	.95	1.00	.75

Sulphur Yellow

In January, 1918, the price was 90c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.85	$0.85	$0.65	$0.65
February	.85	.85	.60	.60
March	.85	.85	.60	.60
April	.75	.75	.60	.60
May	.75	.75	.65	.60
June	.75	.75	.65	.65
July	.75	.75	.65	.65
August	.75	.75	.65	.65
September	.75	.75	.65	.55
October	.75	.75	.55	.55
November	.65	.65	.55	.55
December	.65	.65	.55	.55
Year	.85	.65	.65	.55

Union Navy Blue

In January, 1918, the price was $3.75 per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.25	$2.25	$2.25	$2.25
February	2.25	2.25	2.25	2.25
March	2.25	2.25	2.25	2.25
April	2.25	2.25	2.25	2.00
May	2.25	2.25	2.25	2.00
June	2.25	2.25	2.25	2.25
July	2.25	2.25	2.25	2.25
August	2.25	2.25	2.25	2.25
September	2.25	2.25	2.25	2.25
October	2.25	2.25	2.25	2.25
November	2.25	2.25	2.25	2.25
December	2.25	2.25	2.25	2.25
Year	2.25	2.25	2.25	2.25

Vat Indigo 20 Percent Paste

In October, 1901, the price was 38c. per pound; October 18, 1911, 35c.; 1913, 42c.; 1917, $1.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.60	$0.25	$0.25
February	.60	.60	.22	.22
March	.60	.60	.22	.22
April	.60	.60	.22	.20
May	.55	.55	.20	.20
June	.50	.50	.20	.20
July	.50	.50	.26	.26
August	.45	.45	.26	.26
September	.45	.45	.26	.26
October	.45	.40	.26	.26
November	.40	.40	.26	.26
December	.35	.25	.26	.26
Year	.60	.25	.26	.20

French Dye Production and Imports Compared for 1920 to 1922, Inclusive

	1920		1921		1922		Total average.	
	Metric tons.	Per cent.	Metric tons.	Per cent.	Metric tons.	Per cent.	Metric tons.	Per cent.
Azo dyes—								
Production	2,256.7	52.5	1,906.9	75.1	3,574.8	79.8	7,738.4	68.4
Imports	2,035.1	47.5	633.5	24.9	905.7	20.2	3,574.3	31.6
Indigotine and sulphonic dyes—								
Production	2,981.3	77.4	2,649.3	98.1	1,394.6	99.1	7,025.2	88.2
Imports	873.6	22.6	50.7	1.9	12.3	0.9	936.6	11.8
S colors—								
Production	1,565.8	79.8	822.9	94.6	1,710.5	95.6	4,099.2	88.6
Imports	397.0	20.2	46.7	5.4	78.4	4.4	522.1	11.4
Indophenols, oxazines, thiazines—								
Production	9.4	0.8	61.9	48.6	87.4	23.1	158.7	9.8
Imports	1,112.5	99.2	65.2	51.4	291.2	76.9	1,468.9	90.2
Dyes derived from di and triphenylmethane—								
Production	63.9	12.9	182.9	57.8	559.7	75.2	806.5	51.9
Imports	429.8	87.1	133.8	42.2	184.3	24.8	747.9	48.1
Alizarin dyes—								
Production	8.8	1.7	95.8	68.2	332.3	85.4	436.9	41.8
Imports	505.3	98.3	44.8	31.8	57.2	14.6	607.3	58.2
Unclassified dyes—								
Production	83.3	100.0	76.7	100.0	245.2	100.0	405.2	100.0
Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azines—								
Production	32.7	12.2	18.8	40.1	29.1	38.8	80.6	20.7
Imports	234.8	87.8	28.0	59.9	45.8	61.2	308.6	79.3
Pyrazolon dyes—								
Production	0.3	1.0	16.5	39.2	38.0	40.7	55.0	30.0
Imports	47.7	99.0	25.5	60.8	55.3	59.3	128.5	70.0
Stillbene dyes—								
Production	42.0	45.5	18.9	58.0	36.5	58.0	97.4	48.1
Imports	50.4	54.5	13.7	42.0	26.4	42.0	90.5	51.9
Vat dyes other than indigo—								
Production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Imports	52.7	100.0	56.4	100.0	62.2	100.0	171.3	100.0
Nitro and nitrizo dyes other than picric acid—								
Production	8.7	9.4	4.8	42.1	12.4	77.5	25.9	21.4
Imports	85.2	90.6	6.6	57.9	3.6	22.5	95.4	78.6
Xanthone dyes—								
Production	1.1	3.0	8.3	39.0	16.7	43.9	26.1	27.3
Imports	35.1	97.0	13.0	61.0	21.4	56.1	69.5	72.7
Thiobenzenyl dyes—								
Production	0.0	0.0	1.8	26.1	19.3	55.1	21.1	37.0
Imports	15.1	100.0	5.1	73.9	15.7	44.9	35.9	63.0
Acridines and quinolines—								
Production	1.5	12.0	3.6	22.4	10.3	33.8	15.4	25.5
Imports	12.2	88.0	12.5	77.6	20.2	66.2	44.9	74.5
Cibanones—								
Production	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Imports	1.8	100.0	12.7	100.0	17.3	100.0	31.8	100.0
Totals—								
Production	7,055.7	52.6	5,869.1	22.2	8,066.8	81.8	20,991.6	70.4
Imports	5,888.3	47.4	1,148.2	17.8	1,797.0	18.2	8,833.5	29.6

Japan's Imports Rose In 1923; Exports Fell

TOKIO, Japan, Feb. 11, 1924.

Japan's foreign trade report for 1923, in its full form, is not yet published; only a summary is available. This indicates that the year was one of the worst for Japan's external commerce. But in the lines of business of interest to Reporter readers it was not very bad. Some prominent articles in those lines registered fairly good increases.

The aggregate foreign commerce in 1923 amounted to 3,434,812,000 yen, against 3,527,760,000 yen in 1922, a decrease of 92,948,000 yen. The decrease was entirely found in the export trade. The aggregate of the import trade in 1923 amounted to 1,987,063,000 yen, against 1,890,308,000 yen in 1922, an increase by 96,755,000 yen. The value of the 1923 export trade reached 1,447,749,000 yen, against 1,637,452,000 yen in 1922, a falling off by 189,703,000 yen.

The decrease in the export trade was mainly found in foodstuffs, textiles and their raw or half-manufactured materials, and some other manufactured goods. With few exceptions, trade in chemicals, drugs, and the like, did not decrease. Comparison of the more important items follows:—

Exports

	1923. Yen.	1922. Yen.
Starch	201,000	1,436,000
Vegetable oils and waxes	2,633,000	4,113,000
Camphor	8,879,000	7,248,000
Menthol	3,452,000	3,323,000
Soaps	2,871,000	3,341,000
Glass and glassware	10,145,000	10,317,000

In the import trade, too, this group scored pretty good records, with the exception of a few, including petroleum products. Sulphate of ammonia and some other articles were especially active and expansive during the year 1923. The following tabulation shows values on the import list, as given by the government:—

Imports

	1923. Yen.	1922. Yen.
Salt	2,612,000	7,322,000
Oil seeds	16,495,000	13,997,000
Chilean saltpeter	8,195,000	6,535,000
Sulphate of ammonia	24,947,000	12,737,000
Phosphates	4,855,000	8,984,000
Oil cakes	109,646,000	98,521,000
Caustic soda and soda ash	7,584,000	8,978,000
Coal-tar dyes	9,986,000	13,649,000
Lead	10,661,000	9,529,000
Zinc	9,583,000	9,595,000
Gasoline	10,962,000	11,244,000
Kerosene	15,277,000	18,786,000

The Oil, Paint and Drug Reporter is read every week by the men who dictate the buying policies in the manufacturing industries which consume heavy and fine chemicals, dyestuffs, paint and varnish materials, oils, crude drugs, waxes and fertilizer materials, and it is likewise consulted weekly by the men who direct the selling operations of the industries producing these materials.

An analysis of the circulation of the Oil, Paint and Drug Reporter shows that 78% of its readers are proprietors or administrative officials; 65% are purchasing executives. The remainder are identified with the direction of sales operations.

The Oil, Paint and Drug Reporter circulation statement is based on actual copies mailed per issue and not on yearly or other averages, and its guaranteed circulation is exclusive of the circulation of convention, annual review and other special numbers. It has no bulk or promiscuous sample copy distribution.

Your advertisement in the Oil, Paint and Drug Reporter would be read by those whose business is worth while having.

Dyestuffs and Tanstuffs: Market Review

The market for dyestuffs and tanstuffs was in a firm position at the beginning of 1923. The strength of the position of the market was the result of a combination of circumstances which had developed and matured during the preceding six months. The failure of the crops in a number of Oriental countries during the early part of 1922 made it impossible for the gathering of the customary stocks of gambier, cutch and valonia. Less attention was directed to the gathering of adequate quantities of divi divi and annatto seed in South and Central America, so that shipments of those commodities to the New York market were much lighter than usual.

The tanning extracts were to be had with more ease than any of the foreign tanstuffs, chiefly because they were manufactured in the United States. At the same time the sources of raw materials for these extracts had been dwindling, and the preservation of timber lands presented a serious problem. This tended to augment the prices of chestnut, hemlock and larch extracts. Chestnut extract particularly was in a precarious situation—a situation that becomes more and more serious as time goes on. In the matter of sumac, Sicilian was difficult to secure at a sufficiently low price to make its utilization by the average tanner practicable. The extreme prices which prevailed on the Sicilian were the result of the prolonged drought in Sicily at the time when the leaves were ripening, just before the time they are ready to be gathered. The drought shriveled the leaves, and when the time came to market them the faulty curing prevented much of the crop from being utilized.

Thus, at the beginning of the year conditions in the market were hardly of the most favorable as regards the consumers. Factors in the primary markets were forced to ask high prices for such goods as they accumulated. Unfortunately for trading, consumers did not feel at all amiable toward these high prices, and curtailed purchases as much as possible. Importation of Far Eastern products during the last few months of 1922 had been practically suspended; there was hardly any improvement during January and February of 1923. Such stocks as had been held by importers and dealers in the New York market were gradually dissipated, without any replacements to assuage the demand. Further shipments would have been expensive; consequently, as the spot stocks were reduced through the routine buying, prices advanced. The uncertainties surrounding the securing of supplies had already tried the temper of consumers considerably. During the latter part of January and all of February and the first half of March the American leather market was very dull. Sales fell abruptly. Tanneries began to operate on a reduced schedule or else closed down completely for the time being. Sales of hides were the smallest in months. Buying of tanstuffs lessened. Tanners did not like the high prices that were quoted; conditions in the leather trade were unfavorable to a continuation of regular operations, and this combination of circumstances was decidedly against the acquisition of further supplies of raw materials.

Dullness Versus Shortages

The depression which ensued lasted throughout February and part of March. Buying was practically at a standstill. New York factors who entered the period with stocks of gambier, myrobalans and cutch had almost as much left at the end of the six weeks as at the beginning. It might have been thought that this dullness would have resulted in an easier feeling in prices; but such was not the case. The position of the primary markets was unchanged. If anything, the strength was more pronounced, especially in gambier and Sicilian sumac. No valonia had been received in months, and divi divi was conspicuous by its absence. For both there had been inquiry, but for the available tanstuffs consumers had little need and would not buy.

During the middle of March several lots of valonia finally reached the New York market and were immediately taken off by tanners. A shipment of divi divi was also received, and likewise disposed of quickly. The valonia was the first that reached this market since the destruction of Smyrna in the previous fall. The burning of that city by the revolutionary Turks as part of their offense against the Greeks had resulted in the destruction of many tons of valonia which were stored there, Smyrna being the principal distributing port for this important Asia Minor product. After these stores were burnt occasional offers had been made American importers from Greek points, generally Piræus, but firm bids for these goods had failed to secure them. The valonia which arrived in March filled a long felt necessity, and was readily taken up by tanners in spite of the extremely high prices that were asked. The inability to secure divi divi over a considerable period of time was the reason why tanners were so anxious to buy it. These two tanstuffs, through having been unavailable over a long time, were bought by tanners when manufacturing conditions were far from good and when other tanstuffs were rejected steadily simply because the opportunity presented itself, and it was feared the occasion might not be repeated in the near future.

The scarcity of tanstuffs continued throughout the year. Toward the end of March there was a revival of activity in the tanning and leather trades, with the result that the New York market for tanstuffs underwent a period of lively trading, in which there were many important price changes. The buying of tanstuffs was prolonged until late in the summer. Interest in dyestuffs dwindled earlier, and for the greater part of the summer there was little of importance developed in any of the materials or extracts used most largely in the textile industry. By the first of June conditions were pretty well established. The weak items had declined to levels close to the cost of importation or production; in one or two instances it was possible to secure supplies in the spot market at lower prices than were being quoted at primary points for shipment. On the other hand, such items as had begun the year in a strong position, particularly Sicilian sumac, had not yielded a bit, and prices were as high or higher than they had been.

The summer is never an active time in either the tanning or textile industries. The summer of 1923 was no exception to the rule. Buying began to decrease shortly after the first of May, and conditions reached the drab level of midsummer dullness during June and July. August was hardly better in tanstuffs, but there was more generous commitment by consumers of textile dyestuffs. Little of interest happened until late fall. Changes in prices were the result of conditions of the spot market, and followed the lack of demand. No increase in offerings at primary sources occurred, consequently changes in shipment prices were infrequent, and when they did happen, generally meant high levels rather than declines.

Fall Brought Stimulus

Early fall saw a striking change in conditions. September witnessed a remarkable expansion in buying, remarkable because it developed so suddenly, and seemed to embrace every item in the list. Spot stocks of the more bulk stuffs were rapidly exhausted. Gambier and Sicilian sumac became very scarce and were at a premium. Valonia was also very dear; and advances occurred in chestnut and hemlock extracts. Tanners grumbled at the higher prices, but buying was as extensive as the limited nature of stocks admitted. The strength lasted until the end of the year. It was only in December that buying began to subside, and prices were not greatly affected by the inactivity. There seemed no hope of an increase in shipments of the more important materials:—Annatto, gambier, Sicilian sumac, valonia and albumen. The adverse conditions of weather during the summer and fall, when crops were either ripening or being gathered, prevented adequate accumulation of stocks. At the end of December, the position of the market was very similar to that at the beginning of the year. And there did not seem any indication that prices would be lowered in any important respect in the near future.

The world's crops of annatto seed were small in 1923. This led to a serious shortage of the seed before the end of the year, and consequently prices were greatly enhanced. The seed was to be had in the New York market at 9¾c. per pound in January; in December the price was 19½c., and only one lot of a few dozen bags was to be had. The low prices that had prevailed generally during 1921 discouraged gatherings of the seed in 1922, so that by the beginning of 1923 the primary markets were bare. Harvesting takes place in December and January. The Jamaican seed is the best, but Indian seed is in high favor in the English market, and large shipments are regularly made from Bombay to London. During February and March there was no seed received at New York; the market was nominal. When it came time for the marketing of the 1923 crop in March it was found there was practically none to be marketed. The Jamaican crop was as small as the Indian, and neither the English nor American consumers could secure supplies at a low price or even in adequate volume at a high. By May, small lots of Jamaican seed were received here and sold at 12½c. per pound. The Indian seed was off the market the entire years, and African is most undesirable because of the inferior quality and is never utilized unles sabsolutely necessary. Continued demand forced prices higher, and by October consumers were paying 18½c. November the price touched 19½c., the highest of the year. By that time interest in supplies for 1924 had been aroused, owing to the excessive difficulties of securing sufficient quantities during 1923. But prolonged droughts in Jamaica and India had destroyed much verdure, and annatto particularly suffered. No attempt is made to cultivate the plant; it grows wild along the roadsides and in meadows, and the natives gather it from these sources. That is why the droughts particularly affected it. Up to 25c. was promised by the English consumers for the first of the 1924 crop. Indications in December were that the bids were futile, as there would be so little of a crop that it would go no where at all in taking care of demand.

Albumen Kept Going Up

The Chinese albumen industry suffered a series of hardships in 1923. In the first place, there was no market for the yolk, and in order to cover the loss of the yolk the manufacturers had to add the cost of the yolk to that of albumen. This did not work very satisfactorily, so that the summer and fall production was dropped, the fall altogether. This made for further higher prices. At the beginning of the year, albumen was obtainable in New York at 85c. per pound. The steady demand, the higher prices the Chinese merchants kept asking and the decrease in spot stocks combined to force values up. In April, sales were made at $1.05, a figure which prevailed during the better part of the summer. In December, the price went to $1.18. Importations of egg albumen into the United States in 1923 amounted to 7,046,299 pounds, valued at $2,711,676. Importations in 1922 were 6,569,546 pounds, valued at $2,066,983. The half million pounds increase in importations was inadequate to take care of the increased

The price of Borneo cutch in the New York market varied hardly at all during the whole year. Importations continued in the usual volume throughout the year. As most of the arrivals are already sold when they get here, little was accumulated in the spot market. As a matter of fact, there is rarely any trading in this material in the spot market, and only small stocks are ever to be found. The price throughout the year was from 4c. to 4¾c. per pound.

There was much excitement in gambier early in the year. The primary markets were nearly bare of stocks, and consumers here were unable to secure sufficient supplies to keep them going. The common gambier sold at 11½c. per pound during January, February and March. The slackening up of operations in the tanneries and silk mills in the spring brought about a slight downward revision. Prices remained at 3c. to 9c. per pound during the summer months, because then there was no demand, and storage costs forced sellers to rid themselves as quickly as possible of holdings, whether they lost money or not. The beginning of the fall season saw prices advance again to 10½c. Singapore cubes, for which a very strong demand existed all year, were practically unobtainable during a good share of the time. The price went to 18c. per pound, but consumers paid it willingly in order to secure the goods. Less gambier was assembled in the primary market during the year, which accounted for the advances in prices.

The other tanstuffs did not change greatly during the year. Divi divi held at $38 per ton for practically the whole 12 months. Myrobalans were $26 to $30. It could be said of these materials that consumption was about normal, and that importations were in the usual volume.

The attention of tanners was turned to chestnut extract. The ravages of the chestnut blight have destroyed a large proportion of the chestnut forests of the country. No effective remedy has been found to check this disease, and it seems as though the forests were doomed eventually. Experiments have been conducted with Japanese chestnut trees, which are immune to the blight, but there has been no real attempt at reforestation as yet. The price of twenty-five precent tannin was from 1½c. to 2c. per pound. The hemlock extract was 3½c. per pound. These prices were quoted throughout the whole year.

Effect in Synthetics

The natural extracts used in the textile mills were in less demand than during previous years. This was only to be expected, in view of the advances in the manufacture of aniline colors in this country. It is is only in a few instances that the natural extracts are superior to the aniline colors, and the use of the logwoods, fustics and flavines of other years is certainly but surely being superseded. Even the Oriental markets are preferring synthetic indigo to the natural, and the indigo industry of India has fallen into a low estate. Prices of these extracts hardly fluctuated during 1923. Logwood crystals, for instance, stood at 14c. per pound for most of the year, and it was in logwoods that there were the most marked changes. The competition between makers, the fact that French makers have been able to secure logwood cheaper than Americans, was the reason for the changes. The solid logwood, which sold at 14¾c. per pound early in the year, was 14c. at the end. Fustic crystals were 22c. in January, declined 2c. in June, and stood at 20c. for the balance of the year.

For two years the Sicilian sumac crop was nearly a failure. Little was harvested in 1921, and less in 1922. Consequently, stocks in 1923 got very short before the year was out, and prices were higher than they had been since the war. There seems no reason why the American sumac should not be made to take the place of Sicilian, but, as yet, not sufficient attention has been paid to drying the leaves to make it the peer of the foreign. For certain purposes, tanners must have the Sicilian, and no matter how high the price, it has to be paid. In January of 1923, when tanneries were dull, many of them not running at all, the Sicilian stainless was $55 per ton. As the season advanced, the price got higher. In August, $90 was quoted. In December, the price was $92, and little available in any direction. The latest dispatches from Italy indicated that the droughts of the summer had destroyed part of the crop, and again supplies would be limited. It was this news which forced the prices to the top in December. The stainless extract was 8c. per pound during the first six months of the year. The rising price of raw material caused an advance of ½c., and the market remained steady until the end of December.

Dyestuffs and Tanstuffs: Record of Prices

Chemicals

Antimony Salt

On October 18, 1871, the price was 11c. per pound; 1881, 6c.; 1891, 4c.; 1901, 16c.; 1911, 12c.; 1913, 11½c.; 1918, November, 75c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.25	$0.23
February	.30	.26	.23	.23
March	.26	.26	.24	.23
April	.26	.25	.24	.24
May	.25	.25	.25	.24
June	.25	.25	.25	.25
July	.25	.25	.25	.22
August	.25	.25	.22	.22
September	.26	.25	.22	.22
October	.26	.26	.20	.19
November	.26	.26	.19	.19
December	.26	.26	.19	.19
Year	.30	.25	.25	.19

Potash, Bichromate

On October 18, 1871, the price was 23c. per pound; 1881, 16c.; 1891, 9⅝c.; 1901, 8¼c.; 1911, 7⅝c.; 1913, 6¾c.; 1917, September, 50c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10¼	$0.10¼	$0.10	$0.09¾
February	.10¼	.10	.10	.10
March	.10	.10	.10½	.10¼
April	.10	.09¾	.10¾	.10½
May	.10	.09¾	.11½	.11
June	.09¾	.09¾	.11	.10¾
July	.10¼	.09¾	.10¾	.10¾
August	.10¼	.10¼	.10¼	.10
September	.10¼	.10½	.10	.10
October	.10½	.10	.10	.09¾
November	.10	.09¾	.09¾	.09½
December	.09¾	.09¾	.09½	.09½
Year	.10¼	.09¾	.11½	.09½

Potash, Prussiate, Yellow

On October 18, 1871, the price was 41c. per pound; 1881, 23c.; 1891, 25¾c.; 1901, 13½c.; 1911, 13c.; 1913, 14c.; 1918, January, $1.30.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.24	$0.23	$0.38	$0.37½
February	.25½	.24	.37½	.37¼
March	.26	.25	.37¼	.37¼
April	.28	.26	.37	.37
May	.30	.28	.36½	.36
June	.32	.31	.35	.35
July	.32½	.32	.33½	.33½
August	.35½	.32½	.33½	.32
September	.38	.35½	.32	.30
October	.37¾	.37¾	.30	.29
November	.41	.37¾	.28	.25
December	.40	.38	.25	.25
Year	.41	.23	.38	.25

Soda, Bichromate

On October 18, 1881, the price was 14¾c. per pound; 1891, 8c.; 1901, 6¼c.; 1911, 5⅝c.; 1913, 4½c.; 1919, December, 35c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07½	$0.07½	$0.07¾	$0.07¾
February	.07½	.07½	.07½	.07½
March	.07½	.07¾	.07½	.07½
April	.07¾	.07¾	.07¾	.07½
May	.07¼	.07⅛	.08¼	.08
June	.07¼	.07	.08¼	.08¼
July	.07	.06⅞	.08¼	.08¼
August	.07¼	.07	.08	.07⅞
September	.07½	.07½	.07⅞	.07¾
October	.07½	.07½	.07½	.07¾
November	.07½	.07½	.07⅛	.07¾
December	.07⅞	.07⅞	.07⅛	.07⅛
Year	.07⅞	.06⅞	.08¼	.07⅛

Soda, Hyposulphite, Ordinary

On October 18, 1871, the price was $9 per 100 pounds; 1881, $4.50; 1891, $2; 1901, $1.80; 1911, $1.30; 1913, $1.30; 1918, November, $4.10.

Per 100 pounds

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.85	$2.85	$2.50	$2.50
February	2.85	2.85	2.50	2.50
March	2.85	2.75	2.50	2.50
April	2.75	2.75	2.50	2.50
May	2.75	2.75	2.50	2.50
June	2.75	2.75	2.50	2.50
July	2.75	2.75	2.50	2.50
August	2.85	2.85	2.50	2.50
September	2.85	2.85	2.50	2.50
October	2.85	2.85	2.50	2.50
November	2.85	2.85	2.50	2.50
December	2.85	2.50	2.50	2.50
Year	2.85	2.50	2.50	2.50

Soda, Phosphate, Commercial

On October 18, 1871, the price was 30c. per pound; 1881, 20c.; 1891, 22c.; 1901, 2½c.; 1911, 2¾c.; 1913, 2¾c.; 1918, January, 7c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04	$0.04	$0.03½	$0.03½
February	.04	.04	.03½	.03½
March	.04	.03¾	.03½	.03½
April	.03¾	.03¾	.03½	.03½
May	.03¾	.03¾	.03½	.03½
June	.03¾	.03¾	.03½	.03½
July	.04	.03¾	.03½	.03½
August	.03¾	.03¾	.03½	.03½
September	.03¾	.03¾	.03½	.03½
October	.03¾	.03¾	.03½	.03½
November	.03¾	.03¾	.03½	.03½
December	.03½	.03½	.03½	.03½
Year	.04	.03½	.03½	.03½

Soda, Prussiate, Yellow

On December 8, 1869, the price was 25c. per pound; October 18, 1891, 22c.; 1901, 10¼c.; 1911, 10¾c.; 1913, 10½c.; 1918, June, 75c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.17	$0.16	$0.18½	$0.18½
February	.18½	.18	.18¾	.18¾
March	.18½	.17	.18¾	.18½
April	.18	.17½	.18	.17¾
May	.20	.19	.17½	.16¾
June	.22	.21	.16¾	.16
July	.21½	.21	.16	.15½
August	.20¾	.20¾	.15	.14½
September	.23½	.22½	.14	.13¾
October	.22½	.22	.13½	.13½
November	.22	.20½	.13	.13
December	.20½	.19¾	.12½	.11½
Year	.23½	.16	.18¾	.11½

Tin Crystals

On October 18, 1871, the price was 45c. per pound; 1881, 16½c.; 1891, 14c.; 1901, 20c.; 1911, 25½c.; 1913, 27½c.; 1918, September, 70c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.28½	$0.28½	$0.32½	$0.32½
February	.29	.29	.33	.33
March	.27½	.27½	.33½	.33½
April	.28	.28	.37½	.37½
May	.28½	.28½	.35½	.35½
June	.29½	.29½	.32½	.32½
July	.29½	.29½	.32½	.32½
August	.29½	.29½	.30	.30
September	.29½	.29½	.31½	.31½
October	.30	.30	.31½	.31½
November	.31	.31	.32	.32
December	.32½	.32½	.34½	.34½
Year	.32½	.27½	.37½	.30

Zinc Dust

On March 23, 1881, the price was 15¼c. per pound; October 18, 1891, 7½c.; 1901, 5¾c.; 1911, 7¾c.; 1913, 6½c.; 1916, January, 35c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.08	$0.08	$0.10¼	$0.10¼
February	.08½	.08	.10¼	.10¼
March	.08½	.08½	.10½	.10¼
April	.08½	.08½	.11	.10½
May	.08	.08	.11	.11
June	.08	.08	.11	.11
July	.08¼	.08	.10½	.10
August	.08½	.08	.10½	.10
September	.10	.08½	.10	.08½
October	.10	.10	.08½	.08½
November	.10¼	.10	.10½	.10½
December	.10¼	.10½	.10½	.10½
Year	.10¼	.08	.11	.08½

Natural Dyestuffs

Albumen, Egg

On October 18, 1871, the price was $1.25 per pound; 1881, 75c.; 1891, 33c.; 1901, 35c.; 1911, 50c.; 1913, 42c.; 1918, July, $2.40.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.70	$0.65	$0.85	$0.85
February	.70	.65	.85	.85
March	.70	.68	.95	.90
April	.72	.68	1.05	1.00
May	.75	.72	1.05	1.05
June	.75	.75	1.05	1.05
July	.75	.75	1.05	1.05
August	.75	.75	1.05	1.05
September	.80	.75	.05	1.05
October	.80	.80	1.10	1.08
November	.80	.80	1.15	1.10
December	.80	.80	1.18	1.15
Year	.80	.65	1.18	.80

Annatto Seed

On October 18, 1871, the price was 30c. per pound; 1881, 20c.; 1891, 10c.; 1901, 8c.; 1911, 32c.; 1913, 7c.; 1917, January, 17c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04	$0.04	$0.09¾	$0.09¾
February	.04	.04	None	
March	.05	.04	None	
April	.05	.05	None	
May	.06	.05½	.12½	.12½
June	.06½	.06	.13½	.12½
July	.06	.05	.13½	.13½
August	.05½	.05½	.16	.14
September	.06	.06	.16	.16
October	.06¼	.06	.18½	.16
November	.09¾	.07½	.19½	.18½
December	.09¾	.09¾	.19½	.19½
Year	.09¾	.04	.19½	.09¾

Cochineal, Rosy Black

On October 18, 1871, the price was 67½c. per pound; 1881, 43c.; 1891, 27c.; 1901, 20c.; 1911, 25½c.; 1913, 45c.; 1918, November, $1.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.35	$0.35	$0.35	$0.35
February	.35	.35	.35	.35
March	.35	.35	.33	.33
April	.35	.35	.33	.33
May	.35	.35	.33	.33
June	.35	.34	.33	.32
July	.34	.34	.32	.32
August	.34	.34	.32	.32
September	.35	.34	.32	.32
October	.35	.35	.32	.32
November	.35	.35	.32	.32
December	.35	.35	.34	.32
Year	.35	.94	.35	.32

Cutch, Borneo

On October 18, 1871, the price was 4½c. per pound; 1881, 5⅞c.; 1891, 7½c.; 1901, 4¼c.; 1911, 5¾c.; 1913, 6c.; 1918, November, 27c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.03½	$0.03½	$0.04¾	$0.04¾
February	.03½	.03½	.04¾	.04¾
March	.03½	.03½	.04¾	.04¾
April	.03¾	.03½	.04¾	.04¾
May	.03¾	.03¾	.04¾	.04¾
June	.03¾	.03¾	.04¾	.04¼
July	.03¾	.03¾	.04¼	.04
August	.03¾	.03¾	.04	.04
September	.03¾	.03¾	.04	.04
October	.04	.03¾	.04½	.04½
November	.04¼	.04	.04¾	.04½
December	.04½	.04¼	.04¾	.04¾
Year	.04½	.03½	.04¾	.04

Dextrin, Corn

On October 18, 1871, the price was $8 per 100 pounds; 1881, $6.40; 1891, $6; 1901, $2.70; 1911, $2.87; 1913, $3.17; 1918, June, $9.

Per 100 pounds

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.45	$2.45	$3.39	$3.39
February	2.64	2.45	3.39	3.39
March	2.94	2.64	3.39	3.39
April	2.94	2.94	3.69	3.39
May	3.14	3.14	3.69	3.69
June	3.14	3.14	3.69	3.69
July	3.09	3.09	3.69	3.69
August	3.09	3.09	3.69	3.69
September	3.09	3.09	3.69	3.69
October	3.34	3.09	3.89	3.89
November	3.34	3.34	4.14	4.14
December	3.34	3.34	3.69	3.69
Year	3.34	2.45	3.80	3.39

Dextrin, Potato, Domestic

On May 24, 1881, the price was 8c.; October 18, 1881, 7c.; 1901, 5½c.; 1911, 5½c.; 1913, 6c.; 1918, July, 20½c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.08	$0.08	$0.08	$0.08
February	.09	.08	.08	.08
March	.09½	.09	.08	.08
April	.09¾	.09¼	.07½	.07½
May	.10	.10	.07½	.07½
June	.10¼	.09¾	.07½	.07½
July	.09¾	.09¾	.07½	.07½
August	.10	.09¾	.07½	.07½
September	.09	.09	.07½	.07½
October	.09	.09	.07½	.07½
November	.08½	.08½	.07½	.07½
December	.08½	.08½	.07½	.07½
Year	.10¾	.08	.08	.07½

Divi Divi

On October 18, 1871, the price was $85 per ton; 1881, $70; 1891, $75; 1901, $32; 1911, $45; 1913, $45; 1919, November, $87.

Per ton

	1922. H.	1922. L.	1923. H.	1923. L.
January	$38.00	$35.00	$38.00	$38.00
February	35.00	34.00	38.00	38.00
March	34.00	34.00	38.00	38.00
April	34.00	32.00	38.00	37.00
May	32.00	32.00	38.00	37.50
June	32.00	32.00	38.00	38.00
July	37.00	32.00	39.00	38.00
August	37.00	37.00	39.00	39.00
September	37.00	37.00	39.00	39.00
October	38.00	37.00	39.00	39.00
November	38.50	38.00	39.00	39.00
December	38.00	38.00	39.00	39.00
Year	38.50	32.00	39.00	38.00

Fustic, Sticks

On October 18, 1871, the price was $22 per ton; 1881, $18; 1891, $26; 1901, $22; 1911, $22; 1913, $18; 1918, September, $80.

Per ton

	1922. H.	1922. L.	1923. H.	1923. L.
January	$35.00	$35.00	$30.00	$30.00
February	35.00	35.00	30.00	30.00
March	35.00	35.00	30.00	30.00
April	35.00	35.00	30.00	30.00
May	35.00	35.00	30.00	30.00
June	35.00	35.00	30.00	30.00
July	35.00	35.00	30.00	30.00
August	35.00	35.00	30.00	30.00
September	35.00	35.00	30.00	30.00
October	35.00	30.00	30.00	30.00
November	30.00	30.00	30.00	30.00
December	30.00	30.00	30.00	30.00
Year	35.00	30.00	30.00	30.00

Gambier, Common

On October 18, 1871, the price was 4⅜c. per pound; 1881, 3⅞c.; 1891, 5c.; 1901, 5¼c.; 1911, 6¾c.; 1913, 4½c.; 1916, December, 40c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.06½	$0.06½	$0.11½	$0.11
February	.06¾	.06¾	.11½	.11½
March	.06¾	.06	.11½	.11½
April	.06	.05¾	.11¼	.10
May	.06	.05½	.09½	.09
June	.06	.06	.09	.08½
July	.06	.05¾	.08½	.08½
August	.06	.06	.08¼	.08
September	.06½	.06¼	.08	.08
October	.06½	.06½	.09½	.08½
November	.06½	.06½	.10½	.10
December	.09½	.06½	.10½	.10½
Year	.09½	.05½	.11½	.08

Logwood, Sticks, Haitian

On October 18, 1871, the price was $19 per ton; 1881, $18; 1891, $29; 1901, $15; 1911, $15; 1913, $15; 1918, September, $35.

Per ton

	1922. H.	1922. L.	1923. H.	1923. L.
January	$28.00	$28.00	$28.00	$28.00
February	28.00	28.00	28.00	28.00
March	28.00	28.00	28.00	28.00
April	28.00	28.00	28.00	25.00
May	28.00	28.00	25.00	25.00
June	28.00	28.00	25.00	25.00
July	28.00	28.00	25.00	25.00
August	28.00	28.00	25.00	25.00
September	28.00	28.00	25.00	25.00
October	28.00	28.00	25.00	25.00
November	28.00	28.00	24.00	24.00
December	28.00	28.00	24.00	24.00
Year	28.00	28.00	28.00	24.00

Myrobalans

On October 18, 1881, the price was $38 per ton; 1891, $35; 1901, $35; 1911, $23; 1913, $28; 1917, February, $68.

Per ton

	1922. H.	1922. L.	1923. H.	1923. L.
January	$18.00	$18.00	$23.00	$23.00
February	18.00	18.00	23.00	23.00
March	18.00	18.00	26.00	26.00
April	18.00	18.00	26.00	26.00
May	22.00	18.00	26.00	26.00
June	22.00	22.00	27.00	26.00
July	22.00	22.00	27.00	27.00
August	22.00	22.00	27.00	27.00
September	22.00	21.00	27.00	27.00
October	23.50	22.00	26.50	26.50
November	23.50	23.50	26.50	26.50
December	23.50	23.50	26.50	26.50
Year	23.50	18.00	27.00	23.00

Sago Flour

On October 18, 1871, the price was 8¾c. per pound; 1881, 3¾c.; 1889, 4c.; 1901, 2¾c.; 1911, 2⅝c.; 1913, 2¾c.; 1918, August, 10½c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.03¼	$0.03¼	$0.03¾	$0.03¾
February	.03½	.03¼	.03¾	.03¾
March	.03½	.03½	.03¾	.03¾
April	.03½	.03½	.03½	.03½
May	.03½	.03½	.04	.04
June	.03½	.03½	.04	.04
July	.03¾	.03¾	.04	.04
August	.03¾	.03¾	.04	.03½
September	.03¾	.03¾	.03½	.03½
October	.03¾	.03¾	.03½	.03½
November	.03¾	.03¾	.03½	.03½
December	.03¾	.03¾	.03½	.03½
Year	.03¾	.03¼	.04	.03½

Soda, Acetate

On October 18, 1871, the price was 58c. per pound; 1881, 40c.; 1891, 33c.; 1901, 4¼c.; 1911, 4c.; 1913, 3¾c.; 1918, July, 35c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.05½	$0.04¾	$0.06½	$0.06½
February	.05	.05	.06½	.06
March	.05½	.05	.06	.06
April	.06	.05¾	.06	.06
May	.06	.06	.06	.06
June	.06½	.06¼	.06	.05¾
July	.06	.06	.05¾	.05¼
August	.06⅞	.06½	.05¼	.05¼
September	.07¼	.07	.05¼	.05¾
October	.07½	.07¼	.05¼	.05
November	.07½	.07	.05	.05
December	.06½	.06½	.05	.05
Year	.07½	.04¾	.06½	.05

Starch, Corn

On October 18, 1871, the price was $3 per 100 pounds; 1881, $2.85; 1891, $2.80; 1901, $1.88; 1911, $2.20; 1913, $2.24; 1919, September, $7.25.

Per 100 pounds

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.83	$1.83	$2.72	$2.72
February	2.12	1.83	2.72	2.72
March	2.12	2.12	2.72	2.72
April	2.32	2.12	2.97	2.72
May	2.47	2.32	2.97	2.97
June	2.47	2.47	2.97	2.97
July	2.47	2.47	2.97	2.97
August	2.47	2.47	3.12	2.97
September	2.57	2.57	3.22	3.22
October	2.72	2.57	3.32	3.32
November	2.72	2.72	3.57	3.57
December	2.72	2.72	3.57	3.57
Year	2.72	1.83	3.57	2.72

Starch, Potato, Domestic

On October 18, 1871, the price was 3¾c. per pound; 1881, 3¾c.; 1891, 3½c.; 1901, 3¾c.; 1911, 4c.; 1913, 5c.; 1918, April, 15½c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.05¼	$0.05	$0.05	$0.05
February	.05¼	.05¼	.04½	.04½
March	.05½	.05¼	.04½	.04½
April	.05¼	.05	.04½	.04½
May	.05	.05	.04½	.04½
June	.05¼	.05	.04½	.04½
July	.05½	.05¼	.04½	.04½
August	.05⅝	.05½	.04½	.04½
September	.05¼	.04½	.04½	.04½
October	.05	.05	.04½	.04½
November	.05	.05	.04½	.04½
December	.05	.05	.04½	.04½
Year	.05¾	.04½	.05	.04½

Starch, Potato, Japanese

On October 18, 1871, the price was 5½c. per pound; 1881, 4½c.; 1891, 3¾c.; 1901, 4c.; 1911, 4¼c.; 1913, 5¼c.; 1918, April, 16c.

Per pound

	1922 H.	1922 L.	1923. H.	1923. L.
January	$0.06	$0.06	$0.06	$0.06
February	.06¼	.06	.05½	.05½
March	.06¾	.06½	.05½	.05½
April	.07	.06¾	.05¼	.05¼
May	.07½	.07	.05½	.05½
June	.08½	.08¼	.05½	.05½
July	.06¾	.06¾	.05½	.05½
August	.06¾	.06¾	.05½	.05
September	.06¾	.06¾	.05	.05
October	.06¾	.06	.05	.05
November	.06	.06	.05	.05
December	.06	.05¾	.05	.05
Year	.08½	.05¾	.06	.05

Starch, Wheat

On October 18, 1871, the price was 8½c. per pound; 1881, 7¾c.; 1891, 5¼c.; 1901, 4½c.; 1911, 4¾c.; 1913, 4¾c.; 1918, December, 12½c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.06½	$0.06½	$0.06	$0.06
February	.06½	.06½	.06	.06
March	.06¾	.06½	.06	.06
April	.06½	.06	.05¾	.05¾
May	.06	.06	.06¼	.06
June	.06¾	.06	.06¼	.06¼
July	.06	.06	.06¼	.06
August	.06½	.06¼	.06	.06
September	.06½	.06½	.06	.06
October	.06½	.06	.06	.06
November	.05¾	.05¾	.06	.06
December	.06	.05¾	.06	.06
Year	.06¾	.05¾	.06¼	.05¾

Sumac, Sicily

On October 18, 1871, the price was $110 per ton; 1881, $75; 1891, $65; 1901, $48; 1911, $51; 1913, $15; 1919, February, $150.

Per ton

	1922. H.	1922. L.	1923. H.	1923. L.
January	$55.00	$55.00	$55.00	$55.00
February	55.00	55.00	55.00	55.00
March	55.00	55.00	60.00	60.00
April	55.00	55.00	65.00	65.00
May	55.00	53.00	65.00	65.00
June	53.00	53.00	75.00	65.00
July	53.00	53.00	80.00	75.00
August	53.00	53.00	90.00	85.00
September	53.00	53.00	88.00	85.00
October	53.00	53.00	85.00	85.00
November	55.00	55.00	90.00	85.00
December	55.00	55.00	92.00	90.00
Year	55.00	53.00	92.00	55.00

Tapioca Flour

On October 18, 1871, the price was 6c. per pound; 1881, 4¼c.; 1891, 4½c.; 1901, 3c.; 1911, 4¼c.; 1913, 3½c.; 1918, June, 18c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.02½	$0.02½	$0.04½	$0.04½
February	.02½	.02½	.05	.05
March	.02½	.02½	.05¾	.05¼
April	.02½	.02½	.05¾	.05¾
May	.03	.03	.06	.06
June	.03	.03	.06	.06
July	.03¼	.03	.06	.06
August	.03¼	.03¼	.06	.05½
September	.04	.03	.05½	.05½
October	.04	.04	.05½	.05½
November	.04¼	.04	.05½	.05½
December	.04½	.04¼	.05½	.05½
Year	.04½	.02½	.06	.04½

Extracts

Fustic, Solid

On October 18, 1871, the price was 14½c. per pound; 1881, 11c.; 1891, 9½c.; 1901, 8¾c.; 1911, 8c.; 1913, 8c.; 1916, January, 55c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14	$0.14	$0.14	$0.14
February	.14	.14	.14	.14
March	.14	.14	.14	.14
April	.14	.14	.14	.14
May	.14	.14	.14	.14
June	.14	.14	.14	.14
July	.14	.14	.14	.14
August	.14	.14	.14	.14
September	.14	.14	.14	.14
October	.14	.14	.14	.14
November	.14	.14	.14	.14
December	.14	.14	.14	.14
Year	.14	.14	.14	.14

Fustic, Crystals

On October 18, 1871, the price was 12½c. per pound; 1881, 11c.; 1891, 9½c.; 1901, 8c.; 1911, 8c.; 1913, 6c.; 1916, January, 60c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.22	$0.22	$0.22	$0.22
February	.22	.22	.22	.22
March	.22	.22	.22	.22
April	.22	.20	.22	.22
May	.20	.20	.22	.20
June	.20	.20	.20	.20
July	.20	.20	.20	.20
August	.20	.20	.20	.20
September	.20	.20	.20	.20
October	.20	.20	.20	.20
November	.20	.20	.20	.20
December	.20	.20	.20	.20
Year	.22	.20	.20	.20

Logwood, Solid

On October 18, 1871, the price was 9¼c. per pound; 1881, 8¼c.; 1891, 7¼c.; 1901, 8c.; 1911, 6c.; 1913, 6c.; 1916, January, 90c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14¾	$0.14¾	$0.14¾	$0.14¾
February	.14¾	.14¾	.14¾	.14¾
March	.14¾	.14¾	.14¾	.14¾
April	.14¾	.14¾	.16	.14
May	.14¾	.14¾	.16	.16
June	.14¾	.14¾	.16	.16
July	.17	.15½	.16	.16
August	.17	.17	.16	.14
September	.17	.16	.14	.14
October	.16	.16	.14	.14
November	.16	.16	.14	.14
December	.16	.16	.14	.14
Year	.17	.14¾	.16	.14

Quebracho, Solid

On August 16, 1881, the price was 4¼c. per pound; October 18, 1891, 3½c.; 1901, 4⅜c.; 1911, 4¾c.; 1913, 4¾c.; 1916, January, 20c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04½	$0.04½	$0.04¾	$0.04¾
February	.04¾	.04½	.04¾	.04½
March	.04¾	.04½	.04½	.04½
April	.04¾	.04¾	.04½	.04½
May	.04¾	.04¾	.04½	.04½
June	.04¾	.04¾	.04¾	.04½
July	.04¾	.04¾	.04¾	.04¾
August	.04¾	.04¾	.05	.04¾
September	.04¾	.04¾	.05	.05
October	.05	.04¾	.05	.05
November	.05	.04¾	.05	.05
December	.04¾	.04¾	.05	.05
Year	.05	.04½	.05	.04½

Quercitron, Solid

On October 18, 1871, the price was 2c. per pound; 1881, 7c.; 1891, 6½c.; 1901, 3c.; 1911, 2¾c.; 1913, 2¾c.; 1916, January, 30c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.09	$0.09	$0.09¼	$0.09¼
February	.09	.09	.09½	.09
March	.09	.09	.09	.09
April	.08	.08	.09	.09
May	.09	.09	.09½	.09½
June	.09	.09	.09½	.09½
July	.09	.09	.09½	.09½
August	.09	.09	.09½	.09½
September	.09	.09	.09¾	.09½
October	.09	.09	.09½	.09¾
November	.09¼	.09	.09½	.09½
December	.09½	.09½	.09½	.09½
Year	.09½	.08	.09½	.09

Sumac, Sicilian, Stainless

On January 12, 1877, the price was 6c. per pound; October 18, 1881, 5¼c.; 1891, 6½c.; 1901, 7c.; 1911, 6½c.; 1913, 8c.; 1919, May, 16c.

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.10¼	$0.10¼	$0.08	$0.08
February	.10¼	.08¾	.08	.08
March	.08¾	.08¾	.08	.08
April	.08¾	.08¾	.08	.08
May	.08½	.08½	.08	.08
June	.08½	.08½	.08	.08
July	.08½	.08½	.08½	.08
August	.08½	.08½	.08½	.08½
September	.08½	.08½	.08½	.08½
October	.06¼	.06¼	.08½	.08½
November	.06¼	.06¼	.08½	.08½
December	.06¼	.06¼	.08½	.08½
Year	.19¾	.06¼	.08½	.08

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Logwood in Haiti: An Economic Survey

By H. P. DAVIS

Secretary-Manager, American Chamber of Commerce of Haiti

The following article is published here, by arrangement with the author, in advance of its appearance in the monthly bulletin of the American Chamber of Commerce of Haiti. The monthly bulletins, inaugurated in November, 1923, are designed eventually to constitute a complete commercial handbook of Haiti.

As is true of every Haitian commodity, the production of logwood is accomplished, not by large operations under skilled direction, but by myriads of peasants cutting from government land, unguarded private land, or their own property, and transporting the "sticks" to

Primitive Transportation

the nearest market on ox carts, by rafting down the Artibonite River, or to a much greater extent on their heads or the backs of donkeys.

In periods of low prices, logwood is produced only during seasons when there is no other means of gaining a living, and consequently the supply, even in times of high prices, is produced in a haphazard manner, without system, and totally regardless of the future of the industry.

Export Shipments

During the past seventeen years, exports of logwood have varied from 24,500 tons to 127,000 tons, and the income of the government from the export tax of approximately $3.30 per ton of 2,240 American pounds has been as low as $80,000 per annum and has never exceeded $420,000 per annum.

Shipments over the seventeen years, 1906-07 to 1922-23, averaged about 50,000 tons. The average for the seven fiscal years ended September 30, 1923, was 47,800 tons. Shipments for the fiscal year ended September 30, 1923, amounted to 33,775 tons. Total shipments from all ports during the past seventeen years were as follows:—

Fiscal year.	French pounds.	Tons.
1906-1907	155,487,534	74,962
1907-1908	109,237,870	52,668
1908-1909	88,408,031	42,625
1909-1910	96,861,639	46,701
1910-1911	75,197,092	36,260
1911-1912	94,860,193	45,741
1912-1913	97,198,150	46,863
1913-1914	72,080,450	34,753
1914-1915	49,832,611	24,025
1915-1916	231,258,891	111,499
1916-1917	94,996,943	45,802
1917-1918	50,988,300	24,583
1918-1919	76,716,337	36,988
1919-1920	264,691,063	127,618
1920-1921	76,585,416	36,925
1921-1922	59,960,376	28,833
1922-1923	70,052,509	33,775
	1,744,423,405	850,621
Average seventeen years	102,613,141	50,036
Average first ten years	107,043,246	51,610
Average last seven years	99,141,563	47,800
Average last three years	48,866,100	33,177

The United States has for a long time received the greater portion of the logwood exported from Haiti. The excess of its portion was materially reduced last year, when France cut down the lead. Details of shipments during the fiscal years 1916-17 to 1922-23 follow:—

Year and country.	French Pounds.	Long tons.	Value.
1916-1917—			
United States...	56,464,355		
France	26,003,340		
United Kingdom	5,512,000		
Other countries.	5,200,000		
	93,179,695		
Roots	1,817,248		
Total	94,996,943	45,802	$779,880
1917-1918—			
United States...	48,458,900		
France	2,529,400		
Total	50,988,300	24,583	318,697
1918-1919—			
United States...	71,814,005		
France	4,383,040		
United Kingdom	285,000		
Other countries.	234,292		
Total	76,716,337	36,988	627,881
1919-1920—			
United States...	205,885,913		
France	56,205,110		
Other countries.	2,600,040		
Total	264,691,063	127,618	2,844,529
1920-1921—			
United States...	56,717,549		
France	12,455,743		
United Kingdom	300,000		
Other countries.	5,420,124		
	74,893,416		
Roots	1,692,000		
Total	76,585,416	36,925	744,311
1921-1922—			
United States...	47,129,276		
France	5,871,000		
United Kingdom	850,000		
Other countries.	6,110,100		
Total	59,960,376	28,925	357,420
1922-1923—	Kilos.*		
United States...	17,705,279		
France	13,577,529		
United Kingdom	78,711		
Germany	2,510,854		
Netherlands	406,285		
Total	34,278,658	33,775	498,662

* The customs service has recently adopted the metric system.

Costs and Market Price

The market price of logwood has varied so considerably that price data are of little value in figuring the amount contributed by logwood to the wealth of Haiti during the past seventeen years.

The ruling price today is about $17.50 per ton f.o.b. Haitian ports.

Following the usual custom in Haiti, the peasants sell their logwood to "speculators," who have established small depots

On the Way to Speculator's

throughout the logwood areas, generally in the small towns or along the highways near a shipping port.

The "speculator" accumulates as large a stock as his financial condition permits and sells in turn to the merchants or exporter, who sometimes accumulates large stocks. The exporter pays at the present ruling price from 20 to 30 gourdes ($4 to $6) per millier (1,000 French, or 1,080 American pounds) for wood delivered at his depot.

The "speculator" buys from the peasant at a price generally 4 to 5 gourdes below the ruling price set by the merchant exporters. He also insists on the recleaning of any wood that is not sufficiently free of sap wood, before weighing, and as a result credits the peasant with about 10 percent less than the actual weight "to cover shrinkage, etc." The wood, therefore, reaches the merchant-exporter in the condition generally accepted as "merchantable logwood," and is sold to him at the ruling price, which includes the cost of weighing and piling in the depot.

Handling charges from depot to overside vessel vary in different ports, depending on facilities and the distance from the shore to the vessel's berth. These charges are now generally lower than they were last year. At Cap-Haitien, for instance, the present charges are about 2 gourdes per 2,000 French pounds less than those prevailing one year ago. The average for all ports is approximately as follows:—

	Gourdes.	Gold.
Weighing	1.00	$0.20
Handling and storing in lighter	1.00	.20
Lighterage	5.00	1.00
Miscellaneous expense	2.50	.50
Totals	9.50	$1.90

These charges could be reduced in all ports by better facilities for handling and by improved arrangements for loading and moving lighters.

Duty on logwood is paid at the rate of $1.50 gold per 1,000 French pounds, with an additional 10 cents gold, a fixed fee for controlling weighing, or $1.60 per 1,000 French pounds or 0.016 cent per French pound. The Haitian pound is equivalent to 1.0795854 American avoirdupois pounds or in practice 1.08 (8 percent more than the American pound). Logwood is purchased in Haiti, and duty is paid on the basis of the French pound. It is generally sold f.o.b. on the basis of 2,000 French pounds or 2,160 American pounds. Freight is paid, and the logwood is sold in the United States on the basis of an American long ton of 2,240 pounds, 80 pounds, or 3.57 percent, more than 2,000 French pounds. The actual duty per ton of 2,240 American pounds is $3.30.

Total costs, f.o.b., are, therefore, about as follows:—

	—2,000 French— pounds. Gourdes.	Gold.
Delivered at yard	50.00	$10.00
Handling charges	9.50	1.90
Duty	16.00	3.20
Totals	75.50	$15.10

Much of the wood shipped from Haiti, especially during the past five years, has been handled by the exporter on a commission basis, generally from $1 to $2 per ton.

Distribution of Proceeds

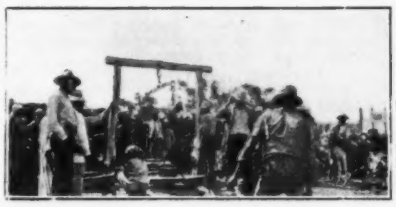
(Based on $17.50 per ton, f.o.b.)

	—2,000 French— pounds. Gourdes.	Gold.
Producer (the peasant)—		
For cutting, cleaning and transporting to market (and in some cases royalty to land-owner)	40.00	$8.00
Speculator—		
For acting as middleman, delivery to depot, etc.	10.00	2.00
Handling charges	9.50	1.90
Duty to Haitian Government.	16.00	3.20
	75.50	$15.10
Profit to exporter	12.00	2.40
	87.50	$17.50

It will be seen from the above figures, which are, of course, only approximate, that the producer receives for his labor and his equity in the growing wood only about three times the amount exacted by the Haitian Government in duties. In other words, about one-quarter of the earnings of the peasant go to the Haitian Government in the form of a direct tax on his product.

A merchant-exporter who accumulates a large stock of wood with his own capital is entitled to a fair percentage (over and above a legitimate interest on his money) to cover possible losses from adverse market conditions and other causes, and the business is hardly attractive unless at least $1.50 to $2 per ton profit seems reasonably assured. A commission of $2 per ton for buying as agent for a consumer is not too high. Such agents must have organizations, good credit and a standing in the community, and $2 per ton is no more than a reasonable payment for such services.

The "speculator," so called, in reality a middleman, is so strongly established in practically every business in Haiti that



Speculator's Establishment

it seems impossible to eliminate him if such elimination were desirable. Some form of government supervision could probably be devised, however, to secure for the peasant a more adequate and just share of the proceeds of his industry.

In this connection, it is well to take into consideration that, as most of the logwood is cut by peasants who cultivate small gardens, it is undesirable that such men should be employed regularly in the logwood industry at day's wages. It is for the best interests of the community that these peasants be paid on some basis of work actually performed, and that they should have opportunity to pick coffee and cotton and attend to their small gardens. In other words, it seems desirable from an economic standpoint that logwood should continue to be produced on the basis of payment by weight for wood delivered, rather than by gangs working at day's labor.

Logwood Producing Districts

Shipments of logwood from the various open ports of Haiti during the past seven fiscal years (1916-17 to 1922-23, inclusive) give some idea of the comparative importance of the different districts. Quantities shipped were as follows:—

	French pounds— 1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
Cap-Haitien	32,386,645	22,232,500	35,801,962	70,014,544	27,104,544	15,085,097	10,982,421
Saint-Marc	10,251,000	8,863,000	6,687,000	45,624,250	10,569,000	19,712,279	18,641,573
Port-de-Paix	7,787,222	8,418,000	11,952,000	35,475,000	4,210,000	14,004,000	*
Cayes	5,644,560	4,030,840	2,573,932	21,304,532	3,481,000	4,175,000	4,920,000
Port-au-Prince	10,136,870	2,180,560	2,140,000	19,135,401	6,975,215	3,019,000	1,423,500
Miragoane	8,787,120	830,000	954,000	20,058,000	9,025,000	1,007,500	7,562,137
Fort Liberte	6,952,499	2,720,000	7,416,443	14,187,630	2,163,850	207,500	8,336,161
Gonaives	11,572,500	100,000	8,788,600	15,439,600	1,639,340	524,000	3,260,673
Aquin	4,004,264	1,613,400	402,400	12,850,250	6,883,532	*	14,416,644
Petit-Goave	1,435,000	.....	.....	4,530,650	911,300	1,083,000	*
Jeremie	.....	.....	.....	3,888,410	2,554,635	200,000	510,000
Jacmel	1,039,263	.....	.....	1,900,000	1,158,000	943,000	*
Totals	94,996,943	50,988,300	76,716,337	264,691,063	76,585,416	59,960,376	70,052,509

* No shipments.

The following surveys of the principal districts are based on a careful analysis of the present situation and a consideration of the probable effect on the logwood industry of improvements in transportation facilities:—

Cap-Haitien-Fort-Liberte District

For economic analysis, Cap-Haitien and Fort-Liberte may be taken as one unit, as these ports serve an area practically continuous, and Fort-Liberte was opened only to facilitate logwood shipments.

These two ports (Cap-Haitien and Fort Liberte) exported during the past seven years an average of 17,618 long tons, or about 37 percent of the total from all ports.

The logwood from the vicinity of Cap-Haitien, known in the trade as "city-wood," has generally been recognized as inferior to "Bahon wood," which comes into town over the Cape-Bahon branch of the National Railroad, but experience has shown that the value of the wood depends more on selection than on locality.

While all of the large tracts of mature wood in the vicinity of Cap-Haitien and Fort-Liberte have been cut, some small tracts of very good wood, "virgin logwood," remain untouched, and if the

Bahon Wood at N. R. R. Terminus

cutting was carefully supervised and reforestation adopted, these tracts would be counted on for permanent supplies of high grade wood.

The future of logwood business of Cap-Haitien, however, depends on the development of the logwood business in the hills and the Central Plain. This, in turn, is dependent on improved transportation facilities and on government supervision of the industry designed to prevent the destruction of the remaining logwood stands.

This, of course, is true of the logwood industry all over Haiti, but is particularly applicable to Cap-Haitien and to a lesser degree Saint Marc, as the logwood shipped from both of these ports originates to a very great degree in the mountain sections where transportation is difficult and the movement of large sticks practically impossible.

Cap-Haitien, for instance, shipped last year 5,295 tons of logwood, of which a very large percent was "Bahon" wood, that is, wood which came in over the National Railroad from Bahon. This wood is well cleaned, but almost invariably in short sections, owing to the fact that it is at present impossible to move heavy pieces over the difficult mountain trails. The extension of the National Railroad from Bahon to Pignon in the Central Plain will make it possible to ship heavy sticks. This will not only save the great loss in weight incident to cutting the wood in short sections, but will also allow the moving of heavy trunks that have hitherto been abandoned because of inadequate transportation facilities, and will greatly stimulate the logwood business at Cap-Haitien.

Port-de-Paix District

Port-de-Paix, the next open port along the coast to the west of Cap-Haitien, serves a district which has been thor-

Average District Shipment

oughly exploited for many years. Practically all of the wood shipped from this port was delivered over an aerial cableway which runs into the interior for about 25 kilometers. The logwood areas of this district are apparently denuded.

	Average for 7 years— Long tons.	Percent.	—1922-1923— Long tons.	Percent.
	14,727	30.82	5,295	15.67
	8,281	17.32	8,987	26.61
	5,637	11.79	*	....
	3,177	6.64	2,372	7.02
	3,100	6.48	686	2.03
	2,987	6.25	3,646	10.80
	2,891	6.05	4,019	11.90
	2,846	5.96	1,573	4.65
	2,767	5.79	6,951	20.59
	548	1.14	*	....
	492	1.03	246	.73
	347	.73	*	....
	47,800	100.00	33,775	100.00

Port-de-Paix in 1919-20 shipped 17,000 tons, fell off 2,250 tons during the year 1920-21, shipped 7,000 tons in 1921-22, and made no shipments at all during the last fiscal year.

Port-de-Paix is apparently no longer an important factor in the logwood market.

Gonaives District

Gonaives is the shipping port for a part of the great tracts of logwood in the Central Plain and the adjoining mountainous districts and valleys and also for a small part of the wood which comes down the Artibonite River, locally known as "Saline" wood.

The completion of the extension of the National Railroad to Pignon would tend

to isolate this port. Gonaives has exported an average of 2,846 tons, or about 6 percent of the total, for the past seven years. Last year Gonaives exported 1,572 tons.

Saint-Marc District

Saint-Marc has exported on an average continue to be, one of the principal logwood shipping ports. Much of the wood shipped from Saint-Marc comes by rafts down the Artibonite River. Large areas adjacent to the headwaters of this river still contain much logwood, and the extension of the National Railroad up the Artibonite valley to Mirebalais will undoubtedly greatly increase the shipments from that port.

Saint Marc has exported on an average of 8,281 tons during the seven years, and shipped 8,987 tons during the last fiscal year, about 27 percent of the total of logwood exported.

The northern districts, enumerated above, exported during the seven years 72 percent of the total for all ports and last year contributed 55 percent of the total.

Port au Prince District

Little logwood remains in the vicinity of Port au Prince, and last year this port exported only 686 tons, as compared with an average of 3,100 tons for the seven years. Most of the wood that comes to Port au Prince in periods of high prices has come from the districts adjacent to Mirebalais and Las Cahobas. The extension of the railroad to Mirebalais will unquestionably deflect this wood to Saint-Marc.

Southern Ports

The Southern ports, including all open ports not enumerated above, contributed only 21 percent of the grand total for the seven years.

The wood exported from Cayes and

Lightering at Cayes, 1917

Aquin, the two principal logwood shipping ports of the South, is transported by pack animals from the interior or by small schooners from the coast towns. There has been comparatively little improvement in roads and trails in these districts, and shipments are very much retarded by lack of proper transportation facilities. It is suggested that any plan to increase the logwood business in Haiti should involve a careful study of the possibilities of securing increased tonnage from these districts by improvements in roads and trails and water transportation.

Miragoane and Petit-Goave serve a contiguous area which produced during the past seven years an average of 3,500 tons, of which Miragoane shipped over 3,000 tons. It is impossible that any increased production can be expected from this area.

Jeremie serves a long, narrow area along the coast, but produces only a little over 1 percent of the total from all ports, and will in the future be of comparatively little importance. Jacmel produced less than 1 percent.

Logwood Extract

A small plant at Grande-Riviere, established in 1916, has produced a total of about 4,300,000 pounds of logwood extract. During the fiscal year ended September 30, 1923, this plant exported 2,215,243 pounds of extract.

The Outlook

It will be seen from the preceding analysis that the future of the logwood business of Haiti will depend on the development of the transportation facilities in the North and in the districts served by the ports of Cayes and Aquin. It is equally clear that some steps should be immediately taken to conserve the remaining logwood stands in all districts, to replant in suitable areas and to prohibit the cutting and shipment of inferior or immature wood.

Logwood has been for many years one of the staple products of the country and, through the export tax, an important source of government revenue.

First introduced into Haiti from Mexico in the early colonial days, logwood, or campeche, as it is called, was used only as a hedge or windbreak to protect the cane fields. Self propagated, the trees gradually spread over the country and are now found in every district

Too Heavy to Handle

where suitable soil and climatic conditions exist.

While prior to the revolution, some logwood was shipped to France, this business did not assume important proportions until about 1835, when 13,293,737 pounds (6,400) tons were shipped. Shipments gradually increased and, in 1860, 104,321,200 pounds (50,298 tons) were exported. The following years, until the political troubles of 1865 to 1870, showed a considerable increase over these figures. No figures are available after 1864 until 1880, which year recorded a remarkable increase to 321,729,801 pounds, (155,075 tons), by far the greatest for any year before or since.

The logwood business has been conducted in the same haphazard manner as have the other productive enterprises in Haiti. No attempt has ever been made to conserve the valuable asset, and wood has been cut indiscriminately from government lands as well as from private holdings. This lack of system has had two decidedly detrimental effects in the logwood industry at Haiti:—

1. In the destruction of large areas of logwood forest, which might have been conserved for future generations, and

2. Owing to lack of intelligent direction, the peasants have habitually cut wood with little regard for tinctorial value, "bastard" logwood, immature wood and branches being indiscriminately included.

The exporter has generally adopted the slogan "after us the deluge" and has failed to set a standard of quality. The result has been that, while a few merchants who have maintained a standard have built up a valuable connection and the wood from a few districts, as, for instance Bahon, is recognized as superior in quality, the average Haitian logwood is reputed in the world's market to be inferior and commands a price only commensurate with its reputation.

These conditions which, not only result in needless waste of the potential wealth of the country, but actually reduce the selling value of one of its principal products, can be remedied only by government supervision.

The great factor in the logwood business of Haiti is becoming more and more a question of transportation. Practically all of the wood in the vicinity of the open ports, which has reached maturity, has been cut. The great tracts of logwood in the interior are not accessible to any means of transportation at present available and will not be until improved transportation facilities are provided.

There is no question that logwood production can be materially increased and at the same time, under proper supervision, the remaining tracts can be conserved and new areas added by forestation.

The peasant does not obtain a fair share of the ultimate price paid by the consumer, and in periods of low prices is not able to earn a fair or even decent wage for the labor expended in cutting, cleaning, and transporting the wood to the market. Another factor in restraining production is the uncertainty regarding the market from month to month. Any developments that would tend to stabilize the price of logwood and regulate the cutting would benefit both the peasant and the government.

Tinctorial Value

Haiti logwood, if properly cleaned and free from "bastard" wood, dead wood and small branches, contains from 25 to 45 percent of 51 deg. extract by laboratory analysis. Even when fully matured and properly cleaned, the yield and also the tinctorial value of logwood is extremely variable, depending on soil, climatic, and other conditions.

Some woods give a high yield of high tinctorial value and are consequently of superior commercial value. Some woods

Selected Wood: Cap-Hatien

give a high yield of low tinctorial value; while others have a low yield of high tinctorial value. Consumers have gradually acquired considerable valuable information for their own guidance regarding the different varieties of Haitian wood and the qualities of wood from different sections, but this information is not co-ordinated and is not generally available.

In commercial treatment, from 25 to 33 percent in weight of the wood is converted into the standard of 51 deg. extract. The average probably being between these figures. The commercial product of logwood is marketed as 51 deg. extract, which contains about 45 percent of moisture, or reduced to crystals which contain about 5 percent of moisture.

If, in commercial practice 30 percent of the weight of the wood is recovered in 51 deg. extract, 2,000 pounds of wood would produce 600 pounds of 51 deg. extract, or, if reduced to crystals, 360 pounds. It may readily be seen that the inclusion of "bastard" wood, dead wood and small branches is not only highly detrimental to the product, but adds considerably to the cost of the extract. The purchase price, handling charges, freight, and cost of manufacture of such wood are all a dead loss to the consumer.

Jamaica Offers Contrast

Experience in Jamaica has shown that logwood may be properly treated as a crop, and when properly cared for can be counted on for a regular and important source of revenue.

As a matter of fact "plantation" logwood constitutes a very large proportion of the wood exported from Jamaica and commands a price in the market substantially higher than that paid for the ordinary, uncared for, wood. Plantation wood is generally of better appearance, more regular in size, and cleaner, but in so far as has been determined, there is no difference in the actual dye value. It is a general practice in Jamaica for the proprietor of the land to mark the trees which are fit for cutting.

In Jamaica, as in Haiti, the cattle grazing land is generally shaded and in Jamaica logwood is grown very largely on grazing land.

Logwood grows readily from seeds, and the general practice is to thin out the "volunteer" seedlings, leaving only a proper number of the stronger ones and,

Jamaica Plantation

where necessary, weeding around those so selected. I am unable to learn of any attempt to establish nurseries in Jamaica, but, of course, there is no reason why this should not be done in Haiti in suitable areas where the logwood has been entirely denuded.

In Jamaica, it is an established practice that a purchaser must accept one-third of the weight of logwood produced in roots, and proprietors demand that roots shall be taken out of the ground when trees are cut. In other words, it has been found that it is better practice to depend for future production on seedlings rather than on shoots from old stumps. There seems to be no reason why, with proper control of the logwood industry in Haiti, this practice should not be established here, thus adding a substantial amount to the annual production and conserving of logwood.

This brings up the question as to the advisability of removing stumps from a standpoint of reforestation, and while there seems to be some difference of opinion regarding this, I am personally convinced that it is for the best interest of the industry to remove the stumps, both from a standpoint of reforestation and from a commercial standpoint.

There is no reliable data as to the time required for logwood trees to reach maturity in Haiti, but in Jamaica it has been found that merchantable wood can be produced from seeds in twelve to eighteen years.

In Jamaica, under normal conditions, about one-half ton of wood per acre is cut from plantations, which, at the same time, are used as grazing land. By seeing that the volunteer seedlings are properly cared for a continuous yearly crop of about one-half ton per acre can be counted on with little or no trouble to the owner, except for some slight attention and the elimination of the unnecessary seedlings at an early stage.

A comparison of the illustrations of Jamaica and Haiti stands gives a most pertinent illustration of the difference between the treatment of logwood areas in these two countries and the decided advantages of the Jamaica practice.

I have pointed out in previous paragraphs that the logwood industry of Haiti is not organized and that a large part of the wood exported, particularly from Cap-Haitien, is cut on unguarded lands by peasants who lay no claim to these lands.

The Savanne lands of the Central Plain are not suitable for grazing and most of the catle in Haiti are found grazing on lands shaded by bayahonde, musouite, logwood or other trees. Experience in Jamaica has shown that logwood areas properly cared for make fine grazing land and, as shown above, the cost of maintaining a logwood plantation is nominal.

On the Jamaica logwood plantations cattle graze in the logwood areas, and the trees reach maturity with plenty of room and sun. The typical logwood areas in Haiti, on the other hand, are densely overcrowded with bush, with no room for grazing, and are too much overcrowded

Typical Stand in Haiti

to allow proper development of the logwood trees. It is also found in certain areas, particularly in the Central Plain, that this overcrowding has resulted in fungus growths, parasites, and a general detrimental effect on the logwood trees. Large areas of such land in the Central Plain, unguarded and abandoned, would, if properly supervised, make fine logwood plantations on the same lines as those in practice in Jamaica.

It is believed that much of the remaining logwood in the Central Plain is in jeopardy on account of the above-mentioned lack of care.

Lead and Zinc Output Showed Gains for 1923

Mine and refinery outputs of lead in the United States in 1923 each made a fair gain. Mine and smelter outputs of zinc each increased about one-third, according to a statement by C. E. Siebenthal and A. Stoll, of the Geological Survey, compiled from reports and estimates by producers and others.

Lead

The recoverable lead content of ores mined in 1923 was 534,000 short tons as compared with 476,849 tons in 1922. The output of primary domestic desilverized lead in 1923 was about 304,000 short tons, of soft lead about 184,000 tons, and of desilverized soft lead about 62,000 tons, making a total output from domestic ores of about 550,000 tons of refined lead, as compared with 468,746 tons in 1922, which was made up of 185,191 tons of desilverized lead, 209,250 tons of soft lead, and 74,305 tons of desilverized soft lead. The output of lead smelted and refined from foreign ore and bullion was about 65,000 tons, as compared with 63,916 tons in 1922. The total lead smelted or refined in the United States was thus about 615,000 tons, as compared with 532,662 tons in 1922. The output of antimonial lead is reported to be about 13,000 tons, as against 8,075 tons in 1922. The imports of refined pig lead in eleven months were 21,065 tons as compared with 3,551 tons in the whole of 1922. Of these imports in 1923, 15,478 tons came from Mexico and 3,248 tons from Spain. The imports in 1923 were received almost wholly in the first seven months of the year. The imports of base bullion in eleven months contained 72,513 tons of lead, of which 70,616 tons came from Mexico. The exports of lead of foreign origin in eleven months were about 42,481 tons and of lead of domestic origin about 2,009 tons, as compared with 38,032 tons and 5,823 tons, respectively, in the year 1922. From a total supply of about 636,000 tons of refined lead (exclusive of stocks) there was withdrawn for export or remained in warehouse about 55,000 tons, leaving 581,000 tons available for consumption in the United States, as against 492,705 tons in 1922 and 444,872 tons in 1921.

Zinc

The recoverable zinc content of ore mined in 1923 was about 623,000 tons, as compared with 472,184 tons in 1922. The output of primary metallic zinc from domestic ores in 1923 was about 485,000 tons and from foreign ores about 2,000 tons, a total of 487,000 tons, as compared with 353,274 tons from domestic ores and 1,003 tons from foreign ores, a total of 354,277 tons, in 1922. In addition to primary zinc there was an output of about 40,000 tons of redistilled secondary zinc, as compared with 32,988 tons in 1922, making a total supply of distilled zinc and electrolytic zinc in 1923 of about 527,000 tons, of which 145,000 tons was high grade and intermediate, 75,000 tons select and brass special, and 307,000 tons prime Western zinc. The output of the corresponding grades in 1922 was 103,861, 49,980, and 233,424 tons, respectively, a total of 387,265 tons.

The imports of foreign slab zinc for eleven months amounted to 591 tons, as compared with 56 tons in 1922. No American zinc was returned in the first nine months of 1923. The exports in eleven months of zinc made from foreign ores were 6,184 tons and those of zinc made from domestic ores were 44,309 tons, as compared with exports of 3,471 and 30,032 tons, respectively, in 1922. The exports of domestic zinc included 3,419 tons of sheet zinc, as against 3,218 tons in 1922. The stock of zinc reported at smelters and in warehouses at the end of November was about 27,000 tons, as against 16,890 at the end of 1922. The apparent consumption of primary zinc in 1923 was thus about 427,000 tons, as compared with 373,094 tons in 1922 and 203,600 tons in 1921.

At the end of November 83,961 retorts were reported in operation out of a total of about 137,000 retorts at active plants, as compared with 81,030 retorts in operation at the end of 1922.

World Output

The lead output of Canada in 1923 was 45,500 tons, an increase of 5,000 tons; that of Rhodesia was 10,000 tons, a decrease of 10,000 tons; and that of Burma was 14,000 tons, an increase of 4,000 tons. The output of the United States was about 75,000 tons larger than in 1922.

The electrolytic zinc output of Canada was 4,500 tons larger than that of Risdon, Tasmania, 17,000 tons larger than in 1922. Belgium increased its output of slab zinc by 33,000 tons and the United States increased its output by 120,000 tons.

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Paint and Varnish Materials: Market Review

The story of 1923 in the market for paint and varnish materials is, in not a few respects, similar to that of its immediate predecessor—1922. The past year, taken as a whole, was a very busy one. It is true that in the last quarter a slowing down of business was noticeable at times, owing to a contraction of general trade in this country, but during many months of the year there was an active and well-distributed demand, and 1923 will go down in history as one which ran a close second in the matter of production and consumption of paint and varnish materials to that of 1922. In the latter year all previous records for activity were eclipsed. At no time during the past year was there any serious competition on the part of imported paint materials, and the prices prevailing during the period were generally remunerative.

The activity and prosperity of the industry was due in no small measure to the fact that building operations in many parts of the country were on a scale never before attained. Residential construction formed a large percentage of the operations, and it is in buildings of this character that consumption of paints and varnishes is heaviest. Construction for residential purposes alone in 1922 was largely in excess of any preceding year, and there was increase in building of this kind during 1923 of nearly 20 per cent. as compared with the preceding year. The total of contracts for buildings of all classes awarded during the past year in thirty-six Eastern States, covering about seven-eighths of the total construction of the United States, amounted to $3,990,483,000, which indicated an expenditure of more than $4,500,000,000 on new construction in the whole country. In the twenty-seven States for which a record was kept in 1922 there was an increase in construction during 1923 as compared with the previous year of approximately 5 percent. After a period of great activity in construction during the spring season there was a small reaction in operations during the summer months, but this was followed by a marked increase in building in the fall and early winter. In the last month of the year there was an increase in construction as compared with December in the previous year of no less than 25 percent.

In addition to the great consumption of paint in building operations, there was also an extensive use of paints and varnishes of all kinds in repainting, consumption in work of this kind being stimulated by the unusually favorable weather which prevailed much of the time late in the year. The movement into consuming channels in other fields was also large, the demand for some descriptions of paint and varnish being so heavy that factories were worked at capacity day and night for long periods. The consumption of paints and varnishes in the automobile industry has grown rapidly in recent years, and there was an active demand throughout the year from manufacturers of pleasure and commercial cars of all grades. Makers of railroad equipment were also prominent in the buying of paints and varnishes last year, and there was a steady call of large dimensions for paint materials of all sorts from large industrial establishments in various parts of the country. The improved financial condition of the South as a result of the high prices received for cotton was reflected in an unusual demand for repainting. In other sections of the country where mild weather prevailed throughout the fall and early winter there was more than the usual amount of repainting. This was especially noticeable in the West and the Northwest, where there was an active demand for mixed paints of all sorts, the over-the-counter trade being very large at times.

Prices at High Levels

The fact that prices were in many cases at high levels had no effect upon the consumption of paint and varnish materials. During the first half of the year the general tendency was upward, prices in not a few instances being anywhere from 15 to 25 percent higher at the close of the first half of the year than they were at the beginning. In the second half of the period consumption was well up to production, and at the close of 1923 stocks in the hands of many producers were smaller than they usually are at the end of the year. And not only were producers' holdings unusually small at the close of 1923, but supplies carried by jobbers and dealers were also in not a few cases abnormally small. This condition offers a rather striking indication of the extent of the consumption of paints and varnishes in 1923, for in many lines there was an increase in production as compared with recent preceding years. Consumption of paints would have been even greater than it was last year but for adverse labor conditions in parts of the country. Here in the East there was little complaint in regard to the labor supply, though some difficulty was experienced in securing competent help at wages which employers were in a position to offer. In some other parts of the country there was a marked scarcity of competent labor, even at exceptionally high wages which were offered in cases where there was pressing need of experienced painters.

A noteworthy feature of the situation late in the year was the marked increase in the number of requests received by corroders and manufacturers for shipment of goods as soon as orders were received. These requests were received in a large volume from consumers and dealers in all parts of the country, the urgent demand for immediate shipments being due to the fact that buyers, by reason of unfavorable developments in the general business situation, permitted their supplies to decrease almost to the vanishing point. This hand-to-mouth policy, which is often adopted by buyers as the turn of the year approaches, caused some manufacturers considerable bother and extra expense last year. One result of this situation was seen in the announcement in December by makers of zinc oxide and lithopone that a discount of one-eighth of a cent a pound would be allowed on orders placed two weeks before shipment of goods was desired. In other words, the buyer who waits until the last minute before sending in his order must pay more than the purchaser who gives the manufacturer two weeks in which to prepare his shipment. It is regarded as quite possible that if the plan adopted by the zinc oxide and lithopone makers works out in the way it was designed to, it may be adopted by manufacturers of other paint materials, for in all branches of the industry there was more than the usual amount of trouble of this kind last year with buyers who were looking for deliveries as soon as their orders were sent in.

Optimistic Sentiment Prevails

At the year-end there was a very good feeling in all branches of the paint and varnish industry concerning the outlook for business during the ensuing year. In most lines optimism was decidedly pronounced. The urgent call for prompt shipments on orders was regarded as an indication that supplies in the hands of consumers and dealers everywhere were unusually small, and that the prospects were for a good demand early in the new year. It will require steady purchasing by many buyers to replenish depleted supplies. The industry is well prepared to take care of this demand, no matter how large it may prove to be. For a considerable period the industry has been steadily expanding, the capacity of many plants having been greatly increased during the past year through the erection of additional buildings for manufacturing materials of all kinds and the remodeling of old structures and equipment. There is no longer serious competition from abroad. Aside from foreign earths and some few other natural products, arrivals of paint materials from abroad do not amount to much. Certain products of foreign origin, such as pigments and colors, which were imported in large quantities before the war, no longer arrive here in such volume as to make them permanent factors in the market, and importations have been further reduced by the tariff on foreign materials.

Moreover, there was an impression among some in the paint and varnish trade at the close of the year that the uncomfortable experiences of consumers and dealers who permitted their stocks to fall to very small dimensions with the approach of the year-end would make them disposed to adopt a different policy with respect to supplies during 1924, and that there would be less of the hand-to-mouth purchasing than was noticeable at times during 1923. The tendency of raw materials in some cases was upward late in the past year, but it was not believed that any advances in prices of finished products that might be necessary as a result of rising cost of raw materials would have the effect of checking demand. At no time during 1923 was there any general objection to meeting advances in prices, the conservative character of purchasing apparently being due merely to a desire to keep stocks down to the lowest possible minimum during the last quarter of the year. This policy seems to have been rather overdone, however, and it was believed by some in the paint industry that buyers would show more willingness to carry supplies of more normal size throughout 1924 than they did in 1923. It is not overlooked by producers that there are many arguments in favor of a conservative course in making purchases, but they also express the opinion that it is not good business policy to overdo the matter at a time when consumption of paint and varnishes of all kinds is as large as it is now in all parts of the country.

Whether the expectations of the trade for 1924 are going to be realized or not is a question which time alone can determine. At the end of 1923 there was a feeling of confidence everywhere with respect to the outlook for 1924. New construction under way or about to be started at the opening of the year was larger than ever before at that period in the history of the country, and it is not at all surprising that everyone in the paint industry expects a busy spring. The building situation is such that a consumption of paints in building operations alone during the coming spring and summer is expected to be fully as large as in the past year, and there is a possibility that it may greatly exceed the consumption in 1923. A large amount of new construction that is now under way will be ready for the painters early in the spring. Early in 1923 it was not considered possible that there could be as much new building in this country as was done during 1922, yet when the record of the past year was completed it was found that the volume of building in 1922 was materially exceeded in 1923. There are some in the trade who say there is no likelihood that there will be as much new building in 1924 as there was in 1923 or anything like it, but this is something that remains to be seen. The volume of new building in January, 1924, was the greatest on record for that month. The whole country is still far from catching up with the building resulting from the stoppage of construction during the war, and the demand for more residential construction is just as great as it was at this time last year.

Lead and Zinc

Fluctuations in pig lead prices in the local market last year were frequent, the range from the highest to the lowest being 1¾c. per pound. The high point of the year, 8¼c. per pound, was reached in March, that price ruling during all of the month and also part of April. The lowest price of the year was recorded in July and August when the quotation was 6½c. per pound. The high for last year compared with a high in the previous year of 7¼c. per pound, showing that the market went 1c. higher at one time in 1923 than it did in the previous year. The lowest price reached in the local market last year was about 1¾c. per pound above the lowest price recorded in 1922.

During the last quarter of the year the tendency of the market was upward and at the close of the year scarcity of spot pig lead was beginning to be experienced, this scarcity becoming pronounced in the early months of the following year. In December of last year there were sales of spot lead in the local market at substantial premiums over the contract prices named by the leading producers. The shortage of supplies was due to the war in Mexico, shipments from that country being suspended at times. The production of lead in Mexico during the first half of the year amounted to 80,000 tons, but during the latter part of the year political conditions in that country became such that shipments rapidly declined and at times ceased.

With the demand for pigments active, corroders experienced difficulty in securing adequate supplies. There was not a little speculative buying of pig lead at times which further curtailed supplies for manufacturing purposes and increased the bullishness of the situation. There was nothing to indicate as the year ended that a reaction in prices was likely to occur, barring the possibility of a sudden and unexpected settlement of the political troubles in Mexico.

Large consumers of pig lead in some cases bought heavily during the summer when prices were at the lowest point of the year. Their purchases proved very profitable later in the year when the market moved steadily upward. Only during the last days of the war was pig lead scarcer and higher than it was at the end of the year under review, though in the first quarter of 1924 sales of spot lead were recorded at as high as 10 cents per pound. During the war the price of pig lead in this market went to 8.05c. per pound, after having been as low as 6.25c. per pound in the early days of the war and the advance came only after a long continued consumption on an enormous scale for war purposes. Since the war the price of lead has fluctuated sharply, rising to 9.25c. in 1920 and falling to 4c. per pound in 1921.

Zinc prices in the local market during the past year covered a range of about 2c. per pound, the highest quotation for the period being .0815c. per pound, and the lowest .0610c. per pound. The former was established in April and the latter in July. In the previous year the highest price recorded was .0735c. and the lowest .0485c. The tendency of the market was upward during the first quarter of last year and also during part of the second quarter. In May, however, the market weakened and the general drift of prices during the remainder of the year was downward. There was a steady consuming demand during the year, but at no time was speculation active. During the latter part of the year a movement was started in Missouri to curtail production by closing down the mines for a week at intervals of three weeks. This action was taken with a view of checking the decline in prices, the depression being due to a large increase in production as a result of the very renumerative prices that prevailed during the latter part of 1922 and the early months of 1923.

Lead Pigments

White lead, basic carbonate, was maintained at high prices throughout 1923, the lowest quotation for dry in casks being 8¼c. per pound, and the highest price 9¾c., showing a range for the year of 1½c. per pound. The minimum price was effective in January and prevailed for only a short time. The highest price of the year—9¾c. per pound—was 1c. per pound above the highest price of the previous year, while the lowest price recorded during the past year—8¼c. per pound—was 1¾c. per pound higher than the lowest price recorded in 1922.

The general course of white lead, basic carbonate, in oil and also that of white lead, basic sulphate, dry was similar to that of white lead, basic carbonate, dry. The highest price recorded for white lead, basic carbonate, in oil last year was .1174c. per pound, and the lowest was 10⅝c. per pound, the former being established in March and the latter in January. In the previous year the highest price was .1093c. per pound and the lowest .09125c. per pound. The highest price reached for white lead, basic sulphate, during the past year was .0925c. per pound and the lowest .0825c. per pound, these prices comparing with 8½c. per pound and 6¾c. per pound, respectively, in the previous year.

The high prices prevailing for white lead during the past year had no effect upon consumption, demand being very active much of the time. Sales fell off to some extent as the end of the year approached, yet leading interests sold more white lead in December than they did in the same month in the previous year. When it is considered that business in this line was so good in 1922 that all records were broken, the record of sales for 1923 made an extremely favorable showing. There was a very optimistic sentiment prevailing at the close of the year as to the outlook for business during the spring of 1924 as well as the remainder of the year. It is not believed that there will be any decrease in consumption as a result of high prices and it is pointed out that as buyers are protected against declines until the middle of the year, high prices are not likely to make consumers and dealers averse to purchasing ahead.

The past year in the market for red lead was one of high prices, yet demand was good throughout the period. The lowest price recorded during the year for dry in casks was .1040c. per pound. This figure, which was established in January, compared with .08c. per pound, the lowest price reached in the previous year. The highest price recorded during 1923 was .1140c. per pound, or 1c. per pound above the highest figure established in the previous year. Although prices were unusually high throughout 1923, this fact had little effect upon consumption. The railroads consumed larger quantities last year than they did in recent preceding years and the use of red lead in the oil industry was also heavy.

Other Paint Materials

At the opening of 1923 the prevailing quotation for Western barytes was $26 per ton, f.o.b. works. That price remained in effect until March, when there was an advance to $28 per ton, and the market continued to be maintained at that level until December, when there was a decline to $25 per ton. The highest price of the year—$28 per ton—compared with $26 per ton in the previous year, while the lowest price last year—$25 per ton—compared with $23 in 1922. The decline in the market late last year was due to competition among producers, and at the close of the year the market was unsettled, with the tendency of prices downward. There was an impression that interesting developments were likely to be witnessed early in 1924, as competition among sellers was steadily increasing toward the close of 1923. Consumption of barytes was liberal during the past year.

Domestic litharge sold at high prices during the past year. At the opening of the year .1093c. per pound was quoted for carload lots, but later in January there was an advance to .1154c. and during the remainder of the year the market continued well above .11c. per pound. In the previous year the highest price recorded was .1093c. per pound and the lowest .0992c. per pound. There was a good demand from the various consuming industries throughout the year.

Lithopone sold at .06c. per pound early in January, 1923. It advanced later in the month to .06½c., with a further rise in February to .06¾c., after which there was an advance in March to 7c. per pound. In April the market rose to 7¼c. per pound, and that proved to be the highest price re-

corded during the year. It compared with a high in the previous year of 6½c. per pound. Demand from the chief consuming industries was good and one of the large producers reported an increase in the volume of sales for the year of 35 percent, as compared with the previous year.

Late in the past year there was a reduction in prices, due to keener competition. An increase in sales was noted at the lower level and at the year end there was an optimistic feeling in trade circles concerning the prospects for trade during the ensuing year. Some of the large producers are working upon plant enlargements which will increase production. Stocks in the hands of producers at the close of the year were unusually light.

Paint and Varnish Materials: Record of Prices

Metals

Pig Lead

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.047	$0.047	$0.080	$0.0725
February	.047	.047	.080	.0725
March	.047	.047	.0825	.0825
April	.0525	.047	.0825	.08
May	.0565	.0525	.0800	.0725
June	.0575	.0565	.0725	.0700
July	.0575	.0565	.0685	.0650
August	.0595	.0575	.0650	.0650
September	.0635	.0595	.0685	.0675
October	.0650	.0635	.0685	.0675
November	.0710	.0650	.0685	.0675
December	.0725	.0710	.0740	.0685
Year	.0725	.047	.0825	.0650

Zinc

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.052	$0.0495	$0.0735	$0.0720
February	.0485	.0485	.0770	.0730
March	.05	.049	.0800	.0765
April	.0535	.05	.0815	.0730
May	.056	.0535	.0735	.0685
June	.0565	.056	.0685	.0620
July	.0635	.0565	.0660	.0610
August	.0665	.0605	.0685	.0655
September	.0725	.0675	.0680	.0670
October	.0735	.0725	.0675	.0665
November	.0735	.0725	.0670	.0660
December	.0735	.0730	.0675	.0660
Year	.0735	.0485	.0815	.0610

Pigments

Barytes

On October 18, 1871, the price was 1⅞c. to 2¼c.; 1881, $21 to $25 per ton; 1891, $18 to $20; 1901, $17 to $20; 1911, $18.50 to $20.50; 1913, $19 to $20; 1920, August, $40.

(Western f.o.b. works.)

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$23.00	$23.00	$26.00	$26.00
February	23.00	23.00	26.00	26.00
March	23.00	23.00	28.00	26.00
April	23.00	23.00	28.00	28.00
May	23.00	23.00	28.00	28.00
June	23.00	23.00	28.00	28.00
July	23.00	23.00	28.00	28.00
August	23.00	23.00	28.00	28.00
September	23.00	23.00	28.00	28.00
October	23.00	23.00	28.00	28.00
November	26.00	23.00	28.00	26.00
December	26.00	26.00	28.00	25.00
Year	26.00	23.00	28.00	25.00

Blanc Fixe, Dry

On July 21, 1880, the price was 3½c.; October 18, 1881, 3¼c.; 1891, 2⅝c. to 3c.; 1901, 2½c. to 2¾c.; 1911, 2⅞c. to 4c.; 1913, 2⅝c. to 4c.; 1920, August, 6½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04½	$0.04	$0.04½	$0.04¼
February	.04¼	.04	.04½	.04¼
March	.04¼	.04	.04½	.04¼
April	.04¼	.04	.04¼	.04
May	.04½	.04	.04¼	.04
June	.04½	.04¼	.04¼	.04
July	.04½	.04¼	.04¼	.04
August	.04½	.04¼	.04¼	.04
September	.04½	.04¼	.04¼	.04
October	.04½	.04¼	.04¼	.04
November	.04½	.04¼	.04¼	.04
December	.04½	.04¼	.04¼	.04
Year	.04½	.04	.04½	.04

White Lead, Basic Carbonate

On October 18, 1871, the price was 10c. to 10¼c.; 1881, 6¾c. to 7c.; 1891, 6⅝c. to 7½c.; 1901, 4¾c. to 5c.; 1911, 5½c. to 6c.; 1913, 5¾c.; 1917, July, 11½c.

(Dry, in casks.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07½	$0.06½	$0.09¼	$0.08¼
February	.07½	.06¾	.09½	.09
March	.07½	.06¾	.09¾	.09
April	.07¾	.06¾	.09¾	.09¼
May	.08	.06¾	.09¾	.09¼
June	.08	.07¼	.09¾	.09¼
July	.08	.07¼	.09¼	.08¾
August	.08	.07¼	.09¼	.08¾
September	.08¼	.07¾	.09¼	.08¾
October	.08¼	.07¾	.09¼	.08¾
November	.08¾	.08	.09¼	.08¾
December	.08¾	.08	.09¼	.08¾
Year	.08¾	.06½	.09¾	.08¼

White Lead, Basic Carbonate, in Oil

On October 18, 1871, the price was 11½c.; 1881, 7¼c. to 7½c.; 1891, 6¾c. to 7½c.; 1901, 5¾c. to 6½c.; 1911, 7¼c. to 7½c.; 1913, 7¼c.; 1917, July, 11½c.

(Carload lots.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.0992	$0.09125	$0.1154	$0.10⅝
February	.0992	.09125	.1154	.11⅛
March	.0992	.09125	.1174	.11⅛
April	.0992	.09125	.1174	.11⅛
May	.1012	.09125	.1174	.11⅛
June	.1012	.09375	.1174	.11⅛
July	.1012	.09375	.1174	.11¼
August	.1012	.09375	.1134	.11¼
September	.1032	.09875	.1134	.11¼
October	.1032	.09875	.1134	.11¼
November	.1073	.10⅜	.1134	.11¼
December	.1093	.10⅜	.1134	.11¼
Year	.1093	.09125	.1174	.10⅜

White Lead, Basic Sulphate

On December 7, 1900, the price was 5¾c. to 6c.; October 10, 1911, 5¾c. to 5½c.; 1913, 5½c.; 1917, August, 11c.

(Dry, in casks.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07	$0.06¾	$0.09	$0.0825
February	.07	.06¾	.09	.09
March	.07	.06¾	.0925	.09
April	.07¼	.06¾	.0925	.0925
May	.07½	.06¾	.0925	.0925
June	.07½	.07¼	.0925	.0925
July	.07½	.07¼	.0925	.0875
August	.07½	.07¼	.0875	.0875
September	.07¾	.07½	.0875	.0875
October	.07¾	.07½	.0875	.0875
November	.08¼	.07¾	.0875	.0875
December	.08¼	.07¾	.0875	.0875
Year	.08¾	.06¾	.0925	.0825

Red Lead

On October 18, 1871, the price was 8¾c. to 10c.; 1881, 6½c. to 6¾c.; 1891, 6¾c. to 7½c.; 1901, 5½c. to 6c.; 1911, 6½c. to 7c.; 1913, 7c. to 7½c.; 1917, July, 13c.

(Dry, in casks.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08¼	$0.08	$0.1115	$0.1040
February	.08¼	.08	.1115	.1115
March	.08¼	.08	.1140	.1115
April	.08¾	.08	.1140	.1140
May	.09	.08	.1140	.1140
June	.09¼	.09	.1140	.1140
July	.09¼	.09	.1140	.1090
August	.09¼	.09	.1090	.1090
September	.09112	.09½	.1090	.1090
October	.0965	.0950	.1090	.1090
November	.1015	.0965	.1090	.1090
December	.1040	.1015	.1090	.1090
Year	.1040	.08	.1140	.1040

Litharge, American

On October 18, 1871, the price was 9c. to 9½c.; 1881, 6½c. to 6¾c.; 1891, 6¾c. to 7½c.; 1901, 4¾c. to 5½c.; 1911, 5½c. to 6c.; 1913, 6¾c. to 7c.; 1917, July, 12½c.

(Carload lots.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.0992	$0.0992	$0.1154	$0.1093
February	.0992	.0992	.1154	.1154
March	.0992	.0992	.1174	.1174
April	.0992	.0992	.1174	.1174
May	.1012	.0992	.1174	.1174
June	.1012	.1012	.1174	.1134
July	.1012	.1012	.1174	.1134
August	.1012	.1012	.1134	.1134
September	.1032	.1032	.1134	.1134
October	.1032	.1032	.1134	.1134
November	.1073	.1032	.1134	.1134
December	.1093	.1073	.1134	.1134
Year	.1093	.0992	.1174	.1093

Orange Mineral, American

On October 18, 1871, the price was 11½c. to 12c.; 1881, 8c. to 12½c.; 1891, 8½c. to 8⅝c.; 1901, 8c. to 8¼c.; 1911, 8½c. to 10c.; 1913, 8½c. to 10c.; 1917, July, 15c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.13	$0.11	$0.1525	$0.1340
February	.13	.11	.1525	.1415
March	.13	.11	.1550	.1415
April	.13½	.11	.1550	.1440
May	.14	.11	.1550	.1440
June	.14	.11	.1550	.1440
July	.14	.12	.1550	.1390
August	.14	.12	.1500	.1390
September	.14	.12½	.1500	.1390
October	.14	.12½	.1500	.1390
November	.14¼	.1315	.1500	.1390
December	.1450	.1340	.1500	.1390
Year	.1450	.11	.1550	.1340

Lithopone

On May 13, 1901, the price was 5c. to 5½c.; October 18, 1901, 5c. to 5½c.; 1911, 3¾c. to 4c.; 1913, 3¾c. to 4½c.; 1920, July, 8¼c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06¼	$0.06	$0.06½	$0.06
February	.06¾	.06	.06¾	.06½
March	.06¾	.06	.07	.06½
April	.06¾	.06	.07¼	.07
May	.06¾	.06	.07¼	.07
June	.06¾	.06	.07¼	.07
July	.06¾	.06	.07¼	.07
August	.06¾	.06	.07¼	.07
September	.06¾	.06	.07¼	.07
October	.06¾	.06	.07¼	.07
November	.06½	.06	.07¼	.07
December	.06½	.06	.07¼	.06¾
Year	.06½	.06	.07¼	.06

Zinc Oxide, French Process, Red Seal

On October 18, 1871, the price was 7¾c.; 1881, 4½c. to 5c.; 1891, 8c.; 1901, 8¼c. to 8⅝c.; 1911, 8¼c. to 8½c.; 1913, 7c. to 7¼c.; 1917, April, 17½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09½	$0.08¾	$0.0925	$0.0875
February	.09½	.08¾	.0925	.0925
March	.09½	.08¾	.0975	.0925
April	.09½	.08¾	.0975	.0975
May	.09½	.08¾	.0975	.0975
June	.09½	.08¾	.0975	.0975
July	.09½	.08¾	.0975	.0975
August	.09½	.08¾	.0975	.0975
September	.09¼	.08¾	.0975	.0975
October	.09½	.08¾	.0975	.0975
November	.09½	.08¾	.0975	.0975
December	.09¾	.08¾	.0975	.0975
Year	.09¾	.08¾	.0975	.0875

Zinc Oxide, Green Seal

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10¼	$0.09¾	$0.1025	$0.0975
February	.10¼	.09¾	.1025	.1025
March	.10¼	.09¾	.1075	.1025
April	.10¼	.09¾	.1075	.1075
May	.10¼	.09¾	.1075	.1075
June	.10¼	.09¾	.1075	.1075
July	.10¼	.09¾	.1075	.1075
August	.10¼	.09¾	.1075	.1075
September	.10¼	.09¾	.1075	.1075
October	.10¼	.09¾	.1075	.1075
November	.10¼	.09¾	.1075	.1075
December	.10¾	.09¾	.1075	.1075
Year	.10¾	.09¾	.1075	.0975

Zinc Oxide, White Seal

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11¼	$0.11	$0.1150	$0.1100
February	.11¼	.11	.1150	.1150
March	.11¼	.11	.1200	.1150
April	.11¼	.11	.1200	.1200
May	.11¼	.11	.1200	.1200
June	.11¼	.11	.1200	.1200
July	.11¼	.11	.1200	.1200
August	.11¼	.11	.1200	.1200
September	.11¼	.11	.1200	.1200
October	.11¼	.11	.1200	.1200
November	.11¼	.11	.1200	.1200
December	.11¾	.11	.1200	.1200
Year	.11¾	.11	.1200	.1100

Zinc Oxide, American Process, 5 Percent Lead Sulphate

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.0775	$0.0725	$0.0675	$0.0625
February	.0775	.0725	.0675	.0675
March	.0775	.0725	.0725	.0675
April	.0775	.0725	.0725	.0725
May	.0775	.0725	.0725	.0725
June	.0775	.0725	.0725	.0725
July	.0775	.0725	.0725	.0725
August	.0625	.0625	.0725	.07121/2
September	.0675	.0625	.0725	.07121/2
October	.0675	.0625	.0725	.07121/2
November	.0675	.0625	.0725	.07121/2
December	.0725	.0625	.0725	.07
Year	.0775	.0625	.0725	.0625

Zinc Oxide, American Process, 35 Percent Lead Sulphate

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.075	$0.07	$0.0650	$0.060
February	.075	.07	.0650	.0650
March	.075	.07	.070	.0650
April	.075	.07	.070	.070
May	.075	.07	.070	.070
June	.075	.07	.070	.070
July	.075	.07	.070	.070
August	.065	.06	.0725	.06⅞
September	.065	.06	.0725	.06⅞
October	.065	.06	.0725	.06⅞
November	.065	.06	.0725	.06⅞
December	.070	.06	.0725	.07
Year	.075	.06	.0725	.060

Dry Colors

Carbon Gas Black

On August 22, 1892, the price was 4c. to 4½c.; October 18, 1901, 8c. to 20c.; 1911, 6¾c. to 8c.; 1913, 4c. to 8c.; 1918, May, 40c.

(F.o.b. works, bags.)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.10½	$0.17	$0.16
February	.20	.10½	.17	.16
March	.20	.10½	.17	.16
April	.24	.12	.17	.16
May	.24	.16	.17	.15
June	.24	.16	.17	.15
July	.24	.16	.17	.15
August	.24	.16	.15	.13
September	.24	.16	.15	.13
October	.24	.16	.13	.11½
November	.24	.16	.11	.07
December	.24	.16	.11	.07
Year	.24	.10½	.17	.07

Lampblack

On October 18, 1871, the price was 6½c. to 10c.; 1881, 5c. to 8c.; 1891, 5c. to 10c.; 1901, 4½c. to 6c.; 1911, 3c. to 15c.; 1913, 3c. to 7c.; 1920, December, 48c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.45	$0.17	$0.40	$0.12
February	.45	.17	.40	.12
March	.45	.17	.40	.12
April	.45	.17	.40	.12
May	.45	.14	.40	.12
June	.40	.12	.40	.12
July	.40	.12	.40	.12
August	.40	.12	.40	.12
September	.40	.12	.40	.12
October	.40	.12	.40	.12
November	.40	.12	.40	.12
December	.40	.12	.40	.12
Year	.45	.12	.40	.12

Ivory Black

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.45	$0.15	$0.45	$0.15
February	.45	.15	.45	.15
March	.45	.15	.45	.15
April	.45	.15	.45	.15
May	.45	.15	.45	.15
June	.45	.15	.45	.15
July	.45	.15	.45	.15
August	.45	.15	.45	.15
September	.45	.15	.45	.15
October	.45	.15	.45	.15
November	.45	.15	.45	.15
December	.45	.15	.45	.15
Year	.45	.15	.45	.15

Iron Oxide, Black

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.16	$0.04½	$0.16	$0.04½
February	.16	.04½	.16	.04½
March	.16	.04½	.16	.04½
April	.16	.04½	.16	.04½
May	.16	.04½	.16	.04½
June	.16	.04½	.16	.04½
July	.16	.04½	.16	.04½
August	.16	.04½	.16	.04½
September	.16	.04½	.16	.04½
October	.16	.04½	.16	.04½
November	.16	.04½	.16	.04½
December	.16	.04½	.16	.04½
Year	.16	.04½	.16	.04½

Iron Blues

Bronze, Milori, Chinese and Prussian

On October 18, 1871, the price was (Prussian blue), 35c. to 70c.; 1881, 30c. to 60c.; 1891, 25c. to 40c.; 1901, 28c. to 34c.; 1911, 28c. to 30c.; 1913, 30c. to 32c.; 1917, July, $1.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.50	$0.50	$0.60	$0.55
February	.50	.50	.60	.55
March	.50	.50	.60	.55
April	.50	.50	.60	.55
May	.60	.50	.60	.55
June	.60	.50	.55	.55
July	.60	.50	.55	.53
August	.60	.55	.55	.50
September	.60	.55	.50	.50
October	.60	.55	.50	.46
November	.60	.55	.50	.45
December	.60	.55	.50	.45
Year	.60	.50	.60	.45

Browns

Sienna, Italian, Burnt

On October 18, 1871, the price was 12c. to 14c.; 1881, 5½c.; 1891, 4c. to 5c.; 1901, 3½c. to 7½c.; 1911, 3c. to 9c.; 1913, 4c. to 7c.; 1920, January, 16c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14½	$0.06	$0.14½	$0.06
February	.14½	.06	.14½	.06
March	.14½	.06	.14½	.06
April	.14½	.06	.14¼	.06
May	.14½	.06	.14¼	.06
June	.14½	.06	.14¼	.06
July	.14½	.06	.14¼	.06
August	.14½	.06	.14¼	.06
September	.14½	.06	.14¼	.06
October	.14½	.06	.14¼	.06
November	.14½	.06	.14¼	.06
December	.14½	.06	.14¼	.06
Year	.14½	.06	.14½	.06

Sienna, American, Burnt and Powdered

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.03¾	$0.03¾	$0.03¾	$0.03⅝
February	.03¾	.03¾	.03¾	.03¾
March	.03¾	.03¾	.03¾	.03¾
April	.03¾	.03¾	.03¾	.03¾
May	.03¾	.03¾	.03¾	.03¾
June	.03¾	.03¾	.03¾	.03¾
July	.03¾	.03¾	.03¾	.03¾
August	.03¾	.03¾	.03¾	.03¾
September	.03¾	.03¾	.03¾	.03¾
October	.03¾	.03¾	.03¾	.03¾
November	.03¾	.03¾	.03¾	.03¾
December	.03¾	.03¾	.03¾	.03¾
Year	.03¾	.03¾	.03¾	.03⅝

Umber, Turkey, Burnt and Powdered

On May 29, 1872, the price was 4½c. to 5c.; August 31, 1881, 3¼c. to 4c.; October 18, 1891, 3½c. to 4c.; 1901, 2½c. to 3½c.; 1911, 2¾c. to 3½c.; 1913, 3c. to 3½c.; 1917, October, 7½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04⅞	$0.04½	$0.04	$0.04
February	.04½	.04½	.04	.04
March	.04½	.04½	.04	.04
April	.04¼	.04¼	.04	.04
May	.04	.04	.04	.04
June	.04	.04	.04	.04
July	.04	.04	.04	.04
August	.04	.04	.04	.04
September	.04	.04	.04	.04
October	.04	.04	.04	.04
November	.04	.04	.04	.04
December	.04	.04	.04	.04
Year	.04½	.04	.04	.04

Umber, American, Burnt and Powdered

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04⅝	$0.03¾	$0.04⅝	$0.03¾
February	.04⅝	.03¾	.04⅝	.03¾
March	.04⅝	.03¾	.04⅝	.03¾
April	.04⅝	.03¾	.04⅝	.03¾
May	.04⅝	.03¾	.04⅝	.03¾
June	.04⅝	.03¾	.04⅝	.03¾
July	.04⅝	.03¾	.04⅝	.03¾
August	.04⅝	.03¾	.04⅝	.03¾
September	.04⅝	.03¾	.04⅝	.03¾
October	.04⅝	.03¾	.04⅝	.03¾
November	.04⅝	.03¾	.04⅝	.03¾
December	.04⅝	.03¾	.04⅝	.03¾
Year	.04⅝	.03¾	.04⅝	.03¾

Vandyke Brown

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04⅞	$0.04⅝	$0.04⅞	$0.04¾
February	.04⅞	.04⅝	.04⅞	.04⅞
March	.04⅞	.04⅝	.04⅞	.04⅞
April	.04⅞	.04⅝	.04⅞	.04⅞
May	.04⅞	.04⅝	.04⅞	.04⅞
June	.04⅞	.04⅝	.04⅞	.04⅞
July	.04⅞	.04⅝	.04⅞	.04⅞
August	.04⅞	.04⅝	.04⅞	.04⅞
September	.04⅞	.04⅝	.04⅞	.04⅞
October	.04⅞	.04⅝	.04⅞	.04⅞
November	.04⅞	.04⅝	.04⅞	.04⅞
December	.04⅞	.04⅝	.04⅞	.04⅞
Year	.04⅞	.04⅝	.04⅞	.04⅞

Greens

Chrome Green, C. P.

On October 18, 1871, the price was 13c. to 21c.; 1881, 5c. to 14c.; 1891, 8c. to 26c.; 1901, 16c. to 20c.; 1911, 17c. to 25c.; 1913, 7c. to 25c.; 1918, August, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.45	$0.30	$0.45	$0.30
February	.45	.30	.45	.32
March	.45	.30	.45	.32
April	.45	.30	.45	.32
May	.45	.30	.45	.32
June	.45	.30	.45	.32
July	.45	.30	.45	.32
August	.45	.30	.42	.30
September	.45	.30	.42	.30
October	.45	.30	.42	.30
November	.45	.30	.42	.30
December	.45	.30	.42	.30
Year	.45	.30	.45	.30

Chrome Green, Commercial

On October 24, 1877, the price was 10c. to 20c.; October 18, 1881, 5c. to 8c.; 1891, 8c.; 1901, 5c. to 6½c.; 1911, 3½c. to 5c.; 1913, 3½c. to 5c.; 1919, February, 15c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.12	$0.12	$0.12
February	.12	.12	.12	.12
March	.12	.12	.12	.12
April	.12	.12	.12	.12
May	.12	.12	.12	.12
June	.12	.12	.12	.12
July	.12	.12	.12	.12
August	.12	.12	.12	.12
September	.12	.12	.12	.12
October	.12	.12	.12	.12
November	.12	.12	.12	.12
December	.12	.12	.12	.12
Year	.12	.12	.12	.12

Paris Green

On October 18, 1871, the price was 25c. to 35c.; 1881, 17c. to 18c.; 1891, 14c. to 22c.; 1901, 12½c. to 14½c.; 1911, 13c.; 1913, 12c. to 13c.; 1917, July, 51c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	Nominal		$0.30	$0.25
February	$0.26	$0.24	.37	.30
March	.24	.21	.37	.30
April	.21	.20	.37	.30
May	.21	.20	.37	.30
June	.22	.21	.37	.30
July	.22	.21	.30	.28
August	.22	.21	.30	.28
September	.22	.21	.30	.28
October	.22	.21	.28	.27
November	.26	.21	.28	.27
December	.26	.25	.28	.27
Year	.26	.20	.37	.25

Reds

Carmine No. 40

On August 15, 1877, the price was $5.50 to $7; October 18, 1881, $5 to $5.25; 1891, $3.10 to $3.20; 1901, $2.05 to $2.75; 1911, $2.30 to $2.50; 1913, $2.75 to $3; 1919, January, $6.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.75	$4.50	$4.75	$4.50
February	4.75	4.50	4.75	4.50
March	4.75	4.50	4.75	4.50
April	4.75	4.50	4.75	4.75
May	4.75	4.50	4.75	4.75
June	4.75	4.50	4.75	4.75
July	4.75	4.50	4.75	4.75
August	4.75	4.50	4.75	4.75
September	4.75	4.50	4.75	4.75
October	4.75	4.50	4.75	4.75
November	4.75	4.50	4.75	4.75
December	4.75	4.50	4.75	4.75
Year	4.75	4.50	4.75	4.50

Indian Red, American

On September 8, 1880, the price was 1¼c. to 1¾c.; October 18, 1881, 1½c. to 1¾c.; 1891, 3½c. to 6¼c.; 1901, 3c. to 3¼c.; 1911, 1½c. to 1¾c.; 1913, 1½c. to 1¾c.; 1919, January, 16c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.08	$0.12	$0.08
February	.12	.08	.12	.08
March	.12	.08	.12	.08
April	.12	.08	.12	.08
May	.12	.08	.12	.08
June	.12	.08	.12	.08
July	.12	.08	.12	.08
August	.12	.08	.12	.08
September	.12	.08	.12	.08
October	.12	.08	.12	.08
November	.12	.08	.12	.08
December	.12	.08	.12	.08
Year	.12	.08	.12	.08

Oxide Red, Copperas

On May 13, 1907, the price was 2c. to 7½c.; October 18, 1911, 2¾c. to 10c.; 1913, 2¾c. to 10c.; 1918, July, 20c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.10	$0.14	$0.10
February	.14	.10	.14	.10
March	.14	.10	.14	.10
April	.14	.10	.14	.10
May	.14	.10	.14	.10
June	.14	.10	.14	.10
July	.14	.10	.14	.10
August	.14	.10	.14	.10
September	.14	.10	.14	.10
October	.14	.10	.14	.10
November	.14	.10	.14	.10
December	.14	.10	.14	.10
Year	.14	.10	.14	.10

Tuscan Red

On August 15, 1877, the price was 20c. to 25c.; October 18, 1881, 11½c. to 13c.; 1891, 7c. to 10c.; 1901, 7c. to 10c.; 1911, 7c. to 10c.; 1913, 7c. to 10c.; 1921, November, 44c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.44	$0.17½	$0.35	$0.17½
February	.44	.17½	.25	.17½
March	.44	.17½	.25	.17½
April	.44	.17½	.25	.17½
May	.35	.17½	.25	.17½
June	.35	.17½	.25	.17½
July	.35	.17½	.25	.17½
August	.35	.17½	.25	.17½
September	.35	.17½	.25	.17½
October	.35	.17½	.25	.17½
November	.35	.17½	.25	.17½
December	.35	.17½	.25	.17½
Year	.44	.17½	.35	.17½

Venetian Red

On October 18, 1871, the price was 2½c. to 3c.; 1881, 1¼c. to 1¾c.; 1891, 1¼c. to 1½c.; 1901, 1¾c. to 3c.; 1911, 1¼c. to 1¾c.; 1913, 1½c. to 1¾c.; 1920, November, 10c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06½	$0.03½	$0.06	$0.03½
February	.06½	.03½	.06	.03½
March	.06½	.03½	.06	.03½
April	.06½	.03½	.06	.03½
May	.06½	.03½	.06	.03½
June	.06	.03½	.06	.03½
July	.06	.03½	.06	.03½
August	.06	.03½	.06	.03½
September	.06	.03½	.06	.03½
October	.06	.03½	.06	.03½
November	.06	.03½	.06	.03½
December	.06	.03½	.06	.03½
Year	.06½	.03½	.06	.03½

English Vermilion

On October 18, 1871, the price was $1 to $1.10; 1881, 54c.; 1891, 91c. to 95c.; 1901, 80c. to 90c.; 1911, 70c.; 1913, 70c.; 1919, January, $2.10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.85	$1.35	$1.30
February	.90	.85	1.35	1.30
March	.90	.85	1.35	1.30
April	.95	.82	1.35	1.20
May	.95	.90	1.35	1.20
June	.95	.90	1.30	1.25
July	.95	.90	1.30	1.25
August	1.20	.90	1.25	1.20
September	1.30	1.20	1.25	1.20
October	1.30	1.25	1.25	1.20
November	1.30	1.25	1.25	1.20
December	1.35	1.30	1.25	1.20
Year	1.35	.82	1.35	1.20

Yellows

Chrome Yellow, C. P.

On October 18, 1871, the price was 22c. to 23c.; 1881, 10c. to 30c.; 1891, 10c. to 25c.; 1901, 10½c. to 25c.; 1911, 12½c. to 13c.; 1913, 11c. to 13c.; 1918, March, 35c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.17	$0.17	$0.19	$0.17
February	.17	.17	.21	.18
March	.17	.16½	.21	.20
April	.17	.16½	.21	.20
May	.17	.16½	.20	.19
June	.17	.16½	.20	.19
July	.17	.16½	.20	.19
August	.17	.16½	.19	.18
September	.17	.16½	.18	.17½
October	.17	.17	.18	.17
November	.17	.17	.18	.17½
December	.17	.17	.18	.17½
Year	.17	.16½	.21	.17

Yellow Ocher, Domestic, Strong

On October 18, 1871, the price was 1¼c. to 1½c.; 1881, 1¼c. to 1½c.; 1891, 1⅝c. to 2¼c.; 1901, 1½c. to 2c.; 1911, 1½c. to 2c.; 1913, ⅝c. to ⅞c.; 1919, August, 5½c. per pound.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.05	$0.03	$0.03	$0.02¼
February	.03	.02½	.03	.02½
March	.03	.02½	.03	.02½
April	.03	.02½	.03	.02½
May	.03	.02½	.03	.02½
June	.03	.02½	.03	.02½
July	.03	.02½	.03	.02½
August	.03	.02½	.03	.02½
September	.03	.02½	.03	.02½
October	.03	.02½	.03	.02½
November	.03	.02¼	.03	.02½
December	.03	.02¼	.03	.02¼
Year	.05	.02¼	.03	.02¼

French Ocher

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.03¼	$0.02½	$0.03½	$0.02¾
February	.03¼	.02	.03½	.02¾
March	.03	.02	.03½	.02¾
April	.04½	.03	.03½	.02¾
May	.04½	.03	.03½	.02¾
June	.04½	.03	.03½	.02¾
July	.04½	.03	.03½	.02
August	.03½	.02¾	.03½	.02
September	.03½	.02¾	.03¼	.02
October	.03½	.02¾	.03¼	.02
November	.03½	.02¾	.03	.01½
December	.03½	.02¾	.03	.01½
Year	.04½	.02	.03½	.01½

Other Paint Materials

Casein

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09½	$0.08	No stocks	
February	.10	.08½	No stocks	
March	.10	.09	No stocks	
April	.10	.09	$0.26	$0.22½
May	.13	.09	.22½	.18½
June	.15	.12	.18½	.16½
July	.20	.16	.16½	.15½
August	.20	.15	.17	.15½
September	.20	.16	.17	.15½
October	.20	.16	.16½	.13½
November	No stocks		.13½	.11
December	No stocks		.13½	.12
Year	.20	.08	.26	.11

China Clay, Imported

On October 18, 1871, the price was 2½c. to 2¼c.; 1881, $14.50 to $21 per ton; 1891 $13 to $18; 1901, $12 to $17; 1911, $11 to $18; 1913, $11 to $18; 1918, August, $50.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$21.00	$16.00	$23.25	$16.25
February	21.00	16.00	23.25	16.25
March	21.00	16.00	23.25	16.25
April	22.50	16.00	23.25	16.25
May	22.50	16.00	23.25	16.25
June	22.00	15.00	23.25	16.25
July	22.00	15.00	23.25	16.25
August	22.00	15.00	23.25	16.25
September	23.25	15.00	23.25	16.25
October	23.25	16.25	23.25	16.25
November	23.25	16.25	23.25	16.25
December	23.25	16.25	23.25	16.25
Year	23.25	15.00	23.25	16.25

China Clay, Domestic

On November 30, 1891, the price was $9 to $12; October 18, 1901, $8.50 to $10; 1911, $8 to $9; 1913, $8 to $9; 1919, March, $25.
(F.o.b. point of production.)

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$9.00	$7.00	$16.50	$15.00
February	9.00	7.00	16.50	15.00
March	9.00	7.00	16.50	15.00
April	16.50	9.00	16.50	15.00
May	16.50	9.00	16.50	15.00
June	16.50	15.00	16.50	15.00
July	16.50	15.00	16.50	15.00
August	16.50	15.00	16.50	15.00
September	16.50	15.00	16.50	15.00
October	16.50	15.00	16.50	15.00
November	16.50	15.00	16.50	15.00
December	16.50	15.00	16.50	15.00
Year	16.50	7.00	16.50	15.00

Cobalt Oxide

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.25	$2.00	$2.50	$2.10
February	2.25	2.00	2.50	2.10
March	2.25	2.00	2.50	2.10
April	2.25	2.00	2.50	2.10
May	2.25	2.00	2.50	2.10
June	2.25	2.00	2.50	2.10
July	2.25	2.00	2.50	2.10
August	2.25	2.00	2.50	2.10
September	2.50	2.10	2.50	2.10
October	2.50	2.10	2.50	2.10
November	2.50	2.10	2.50	2.10
December	2.50	2.10	2.50	2.10
Year	2.50	2.00	2.50	2.10

Fuller's Earth, Powdered (Imported)

On February 18, 1895, the price was 75c. to 80c. per 100 pounds; October 18, 1901, 75c. to 80c.; 1911, 80c. to 85c.; 1913, 80c. to 85c.; 1918, July, $2.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$25.00	$22.00	$25.00	$23.00
February	25.00	22.00	25.00	23.00
March	25.00	22.00	25.00	23.00
April	25.00	22.00	25.00	23.00
May	25.00	22.00	25.00	23.00
June	25.00	23.00	25.00	23.00
July	25.00	23.00	25.00	23.00
August	25.00	23.00	25.00	23.00
September	25.00	23.00	25.00	23.00
October	25.00	23.00	25.00	23.00
November	25.00	23.00	25.00	23.00
December	25.00	23.00	25.00	23.00
Year	25.00	22.00	25.00	23.00

Plaster of Paris

On August 15, 1877, the price was $3; October 18, 1881, $1.75; 1891, $1.75 to $2; 1901, $1.75; 1911, $1.50 to $1.70; 1913, $1.50 to $1.75; 1920, November, $5.

	Per barrel			
	1922.		1923.	
	H.	L.	H.	L.
January	$5.00	$4.25	$5.00	$4.25
February	5.00	4.25	5.00	4.25
March	5.00	4.25	5.00	4.25
April	5.00	4.25	5.00	4.25
May	5.00	4.25	5.00	4.25
June	5.00	4.25	5.00	4.25
July	5.00	4.25	5.00	4.25
August	5.00	4.25	5.00	4.25
September	5.00	4.25	5.00	4.25
October	5.00	4.25	5.00	4.25
November	5.00	4.25	5.00	4.25
December	5.00	4.25	5.00	4.25
Year	5.00	4.25	5.00	4.25

Putty, Commercial

On October 18, 1871, the price in 12½-lb. tins was 3¾c. to 4¼c.; 1881, 2½c. to 2¾c.; 1891, 2¾c. to 2½c.; 1901, 2¼c.; 1911, 1½c. to 2c.; 1913, 1 to 5-lb. tins, $1.50 to $1.90 per 100 pounds; 1918, July, $7.40.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$6.25	$4.75	$6.25	$4.75
February	6.25	4.75	6.25	4.75
March	6.25	4.75	6.00	4.00
April	6.25	4.75	6.00	4.00
May	6.25	4.75	6.00	4.00
June	6.25	4.75	6.00	4.00
July	6.25	4.75	6.00	4.00
August	6.25	4.75	6.00	4.00
September	6.25	4.75	6.00	4.00
October	6.25	4.75	6.00	4.00
November	6.25	4.75	6.00	4.00
December	6.25	4.75	6.00	4.00
Year	6.25	4.75	6.25	4.00

Silica

On January 25, 1888, the price was $14 to $25; October 18, 1891, $14 to $25; 1901, $12 to $18; 1911, $12 to $40; 1913, $12 to $40; 1918, July, $40.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$35.00	$12.00	$40.00	$10.00
February	35.00	12.00	40.00	10.00
March	35.00	12.00	40.00	10.00
April	35.00	12.00	40.00	10.00
May	40.00	10.00	40.00	10.00
June	40.00	10.00	40.00	10.00
July	40.00	10.00	40.00	10.00
August	40.00	10.00	40.00	10.00
September	40.00	10.00	40.00	10.00
October	40.00	10.00	40.00	10.00
November	40.00	10.00	40.00	10.00
December	40.00	10.00	40.00	10.00
Year	40.00	10.00	40.00	10.00

Terra Alba, American, No. 1

On October 24, 1888, the price was 65c. to 70c.; October 18, 1891, $1; 1901, 65c. to 85c.; 1911, 75c. to 80c.; 1913, 75c. to 80c.; 1921, January, $2.

	Per 100 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$1.85	$2.00	$1.85
February	2.00	1.85	2.00	1.85
March	2.00	1.85	2.00	1.85
April	2.00	1.85	2.00	1.85
May	2.00	1.85	2.00	1.85
June	2.00	1.85	2.00	1.85
July	2.00	1.85	2.00	1.85
August	2.00	1.85	2.00	1.85
September	2.00	1.85	2.00	1.85
October	2.00	1.85	2.00	1.85
November	2.00	1.85	2.00	1.85
December	2.00	1.85	2.00	1.85
Year	2.00	1.85	2.00	1.85

Talc, American

On November 30, 1891, the price was $1 to $1.25 per 100 pounds; October 18, 1901, 90c. to $1.10; 1911, $15 to $20 per ton; 1913, $15 to $20; 1918, July, $40.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$20.00	$18.00	$18.00	$15.00
February	20.00	18.00	18.00	15.00
March	20.00	18.00	18.00	15.00
April	20.00	15.00	18.00	15.00
May	18.00	15.00	18.00	15.00
June	18.00	15.00	18.00	15.00
July	18.00	15.00	18.00	15.00
August	18.00	15.00	18.00	15.00
September	18.00	15.00	18.00	15.00
October	18.00	15.00	18.00	15.00
November	18.00	15.00	18.00	15.00
December	18.00	15.00	18.00	15.00
Year	20.00	15.00	18.00	15.00

Whiting Commercial

On October 18, 1871, the price was 1c. per pound; 1881, 50c. to 55c. per 100 pounds; 1891, 70c. to 75c.; 1901, 40c. to 60c.; 1911, 45c. to 50c.; 1913, 45c. to 50c.; 1920, April, $1.40.

	Per 100 pounds			
	1922		1923.	
	H.	L.	H.	L.
January	$1.15	$1.15	$1.00	$1.00
February	1.15	1.15	1.00	1.00
March	1.15	1.15	1.00	1.00
April	1.15	1.10	1.00	1.00
May	1.10	1.10	1.00	1.00
June	1.10	1.10	1.00	1.00
July	1.10	1.10	1.00	1.00
August	1.10	1.10	1.00	1.00
September	1.10	1.00	1.00	1.00
October	1.00	1.00	1.00	1.00
November	1.00	1.00	1.00	1.00
December	1.00	1.00	1.00	1.00
Year	1.15	1.00	1.00	1.00

Varnish Gums

Congo, Copal Picture

On February 8, 1909, the price was 30c. to 35c.; October 18, 1911, 30c. to 35c.; 1913, 30c. to 34c.; 1918, July, 45c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.36	$0.34	$0.45	$0.40
February	.36	.34	.45	.40
March	.45	.40	.45	.40
April	.45	.40	.45	.42
May	.45	.40	.45	.42
June	.45	.40	.45	.42
July	.45	.40	.45	.42
August	.45	.40	.45	.42
September	.45	.40	.45	.42
October	.45	.40	.45	.42
November	.45	.40	.45	.42
December	.45	.40	.45	.42
Year	.45	.34	.45	.40

Dammar, Batavia

On October 18, 1871, the price was 13c.; 1881, 18c. to 21c.; 1891, 16c. to 18c.; 1901, 12½c. to 13¼c.; 1911, 12¼c. to 12¾c.; 1913, 20c. to 21c.; 1920, March, 60c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.27	$0.27	$0.31	$0.20¼
February	.30	.27	.32	.30
March	.30	.31	.32	.30
April	.30	.30	.31	.30
May	.34	.32	.30	.28¼
June	.35	.34	.28¼	.28
July	.35	.35	.28	.27
August	.35	.35	.28	.27
September	.35	.34	.26¼	.25
October	.34	.31½	.25¼	.25
November	.34	.31½	.25½	.25
December	.31	.29½	.25¼	.25
Year	.35	.27	.32	.25

Kauri, No. 1

On October 18, 1871, the price for ordinary to prime was 11c. to 12c.; 1881, 10c. to 15c.; 1891, 13½c. to 14½c.; 1901, 26c. to 30c.; 1911, 20c. to 24c.; 1913, 50c.; 1920, March, 60c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.58	$0.65	$0.62
February	.65	.58	.68	.62
March	.65	.58	.68	.62
April	.65	.62	.68	.62
May	.65	.62	.68	.65
June	.65	.62	.68	.67
July	.65	.62	.68	.67
August	.65	.62	.68	.67
September	.63	.62	.68	.67
October	.65	.62	.68	.67
November	.65	.62	.68	.67
December	.65	.62	.68	.67
Year	.65	.58	.68	.62

Manila, Pale

On August 22, 1877, the price was 7½c. to 8c.; March 18, 1881, 10c. to 18c.; October 18, 1891, 17c. to 25c.; 1901, 14c. to 16c.; 1911, 15c. to 18c.; 1913, 15c. to 18c.; 1920, May, 30c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.21	$0.20	$0.21	$0.20
February	.21	.20	.22	.21
March	.21	.20	.22	.21
April	.21	.20	.22	.21
May	.21	.20	.22	.21
June	.21	.20	.22	.21
July	.21	.20	.22	.21
August	.21	.20	.22	.21
September	.21	.20	.22	.21
October	.21	.20	.22	.21
November	.21	.20	.22	.21
December	.21	.20	.22	.21
Year	.21	.20	.22	.20

Pontiak, No. 1

On July 1, 1907, the price was 17c.; October 18, 1911, 12¼c. to 13½c.; 1913, 13½c. to 15c.; 1919, December, 45c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.19	$0.20	$0.19
February	.20	.19	.22	.20
March	.20	.19	.22	.20
April	.20	.19	.22	.20
May	.20	.19	.22	.20
June	.20	.19	.22	.20
July	.20	.19	.22	.20
August	.20	.19	.22	.20
September	.20	.19	.22	.20
October	.20	.19	.22	.20
November	.20	.19	.22	.20
December	.20	.19	.22	.20
Year	.20	.19	.22	.19

Gilsonite

On May 27, 1907, the price was 2½c. to 3½c. per pound; October 18, 1911, $36 to $50 per ton; 1913, $36 to $50; 1919, March, $60.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$70.00	$62.50	$65.00	$53.00
February	70.00	62.50	65.00	53.00
March	70.00	62.50	65.00	53.00
April	70.00	62.50	65.00	53.00
May	70.00	62.50	65.00	53.00
June	70.00	62.50	65.00	53.00
July	70.00	62.50	65.00	53.00
August	70.00	62.50	65.00	53.00
September	70.00	62.50	65.00	53.00
October	65.00	53.00	65.00	53.00
November	65.00	53.00	65.00	53.00
December	65.00	53.00	65.00	53.00
Year	70.00	53.00	65.00	53.00

Glues

Cabinet

On October 18, 1871, the quotation for white glue was 35c. to 50c.; 1881, 15c. to 24c.; 1891, 14c. to 25c.; 1901, 18c. to 23c.; 1911, 18c. to 24c.; 1913, 13c. to 15c.; 1917, October, 17c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.18	$0.30	$0.19
February	.30	.18	.30	.19
March	.30	.18	.30	.19
April	.30	.18	.30	.19
May	.30	.18	.30	.19
June	.30	.18	.30	.19
July	.30	.18	.30	.19
August	.30	.18	.30	.19
September	.30	.18	.30	.19
October	.30	.19	.30	.19
November	.30	.19	.30	.19
December	.30	.19	.30	.19
Year	.30	.18	.30	.19

Common Bone

On October 18, 1871, the price was 18c. to 25c.; 1881, 8c. to 11c.; 1891, 7c. to 9c.; 1901, 6½c. to 8c.; 1911, 7½c. to 9c.; 1913, 7½c. to 9c.; 1917, August, 25c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.08½	$0.15	$0.11
February	.14	.08½	.15	.11
March	.14	.08½	.15	.11
April	.14	.08	.15	.11
May	.14	.08	.15	.11
June	.14	.08	.15	.11
July	.12	.08	.15	.11
August	.12	.08	.15	.11
September	.12	.08	.15	.11
October	.14	.10	.15	.11
November	.14	.10	.15	.11
December	.15	.11	.15	.11
Year	.15	.08	.15	.11

Extra White

On November 1, 1876, the price was 38c.; October 18, 1881, 27c. to 35c.; 1891, 18c. to 25c.; 1901, 18c. to 23c.; 1911, 18c. to 24c.; 1913, 18c. to 24c.; 1917, November, 45c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.40	$0.30	$0.40	$0.30
February	.40	.30	.40	.30
March	.40	.30	.40	.30
April	.40	.30	.40	.30
May	.40	.30	.40	.30
June	.40	.30	.40	.30
July	.40	.30	.40	.30
August	.40	.30	.40	.30
September	.40	.30	.40	.30
October	.40	.30	.40	.30
November	.40	.30	.40	.30
December	.40	.30	.40	.30
Year	.40	.30	.40	.30

Naval Stores: Market Review

The year 1923 in the local market for naval stores was featured chiefly by a period of unusually high prices for turpentine during the first quarter, and by a sharp decline during the second quarter, the fall in the price from the high point of the year to the low being 68 cents per gallon. After the break in the market, fluctuations in prices were not of an abnormal nature, being confined within moderate limits much of the time. Frequent changes occurred in rosin quotations, though at no time were the fluctuations very wide, the general tendency of the market being upward for a time, after which the trend was downward. Changes in tar, pitch and minor naval stores were confined within moderate limits much of the time, prices being steady or firm as a rule during the first half of the year, with some shading of quotations during the second half.

Turpentine

The abnormally high prices that prevailed for turpentine in the first quarter of the year were attributable mainly to a marked decrease in the movement from the woods to the southern primary centers, increasing strength of the statistical position and sharp competition at times between domestic and foreign buyers. Supplies in foreign markets fell to so low a level that, despite the high prices prevailing in this country, Europe was compelled to provide for its requirements during the early months of the new naval stores season, which opened on April 1, and at times European purchasing was a prominent feature of the operations in southern primary markets. The exports of spirits of turpentine from the United States to all countries in Europe for the year 1923 were 11,478,459 gallons as compared with exports in the previous year of 9,369,403 gallons. The increase in the export movement of American turpentine during the past year was greater than had been expected by many in the trade, as in the early months of the year there was an increase in the exports from some of the foreign turpentine producing countries to the United Kingdom and some of the Continental countries, the shipments from France, Spain and Greece being larger than had been anticipated. But the consumption abroad increased to such an extent as a result of an improvement in foreign trade that, as already intimated, Europe found it necessary to buy freely of American spirits at times in spite of the high prices prevailing in this country. Stocks of American spirits in London at the close of 1923 were about 31,600 barrels, against 17,700 at the close of the previous year and 14,100 at the end of 1921.

In addition to an increase in export trade in turpentine there was also a gain in domestic consumption, and despite an increase in production in this country in 1923 stocks in the three principal seaboard markets—Savannah, Jacksonville and Pensacola—at the close of the year, were not much larger than at the end of 1922, the excess being only about 7,000 barrels, whereas the arrivals at the three markets were much larger than in the previous year. The great activity in building through the United States accounts largely for the increase in the domestic consumption of turpentine, the requirements for painting operations being materially increased. Building in all parts of the country was on an unprecedented scale and in the east was abnormally active even in the winter months, the consumption of turpentine in painting in those months being far above normal, especially in the eastern section of the country, where residential construction attained proportions never before reached. In other lines consumption also increased owing to the activity of general trade in this country, the consumption in all branches of industry being sufficiently great to absorb an increase in production. At one time the price of turpentine went so high that the use of substitutes was considerably increased, but the break in the market which occurred in the late spring and which has already been referred to caused consumers in many cases to resume the use of spirits of turpentine instead of substitutes. Early in the year the movement of old crop turpentine had fallen to such small proportions that there was keen competition between domestic and foreign buyers for new crop futures and in the primary markets there were sales at as high as $1.20 to $1.25 per gallon for May-August delivery, prices which were said to be the highest on record for such transactions. About 30,000 barrels were reported to have been sold at around these figures and more could have been sold if factors had been willing to enter into further contracts at that period of the year for delivery over May-August. At the close of 1923 stocks in the Savannah, Jacksonville and Pensacola markets aggregated about 50,000 barrels, which compared with 43,000 at the close of the previous year, 65,000 in 1921, 53,000 in 1920, 30,000 in 1919, 128,000 in 1918, and 132,000 in 1917.

In the New York market during the first quarter of the year, the price ranged from $1.43 to $1.57 per gallon, the former figure being recorded in February and the latter in March. In April there was an advance to $1.61 per gallon, which proved to be the high point established during the year. In Savannah the high point of the year was $1.54 per gallon, and in Jacksonville $1.52¼ per gallon. In the local market the price fell back in May to $1.08 per gallon, and in June to $1.02. During the second and third quarters of the year fluctuations in prices were confined within much narrower limits, and at no time was there any of the feverishness that was witnessed here and in southern markets during the second quarter of the year. At the close of the year in the local market the prevailing quotation for spirits of turpentine was 93c. per gallon, which compared with a quotation at the opening of the year of $1.47 per gallon. Wood turpentine followed the general course of spirits. Steam distilled touched $1.49 per gallon early in the year, falling to 86c. later on, while destructive distilled ranged from $1.36 per gallon to 65c., the former price being established in January and the latter in August.

Rosin

A material increase in foreign trade was a noteworthy feature of the market for rosin during 1923. The shipments to all countries were 1,205,649 barrels, against 799,174 barrels in 1922, showing an increase last year of 506,475 barrels. The big exports of American rosin in 1923 absorbed much of the supplies carried over in southern markets from the previous year, and although arrivals in the Savannah, Jacksonville and Pensacola markets last year were, roughly, 1,000,000 barrels, or 150,000 more than in the preceding year, stocks in those markets at the close of 1923 were no larger than at the close of 1922. A development of striking interest in our foreign trade was the marked increase in the exports of rosin to Germany. There were also noteworthy gains, however, in our exports to the United Kingdom as well as to the Far East. Exports to South America showed a gain, and there was an increase in shipments to Cuba and Canada. Shipments to the Orient would have shown a still greater increase than they did but for the earthquake in Japan, which brought business with that country to a standstill.

In addition to the material increase in exports of American rosin in 1923, there was a gain in domestic consumption, the increased use in some fields being rather pronounced. This increase in domestic consumption was attributed to the relatively low prices prevailing much of the time during 1923. The increase in domestic requirements was greatest in the case of the medium grades, and at times the call for these descriptions was so sharp that supplies were cleaned up temporarily, making it necessary for buyers to take other kinds, generally the paler grades. Notwithstanding the increase in consumption abroad and at home, however, and despite the high prices prevailing for turpentine at times, the market for rosin failed to advance to any extent, such upturns as occurred in prices being only temporary. There was much complaint on the part of producers of naval stores over the unsatisfactory prices secured for rosin, the contention being made that but for the unusually high prices realized for turpentine producers would have sustained losses for the year, the prices which prevailed for rosin much of the time being below the cost of production. This feeling of dissatisfaction over low prices was especially marked during the last few months of the year, and there was a belief among some in the trade that it would bring about efforts to curtail production during the ensuing year.

In the local market the highest prices of the year for most grades were recorded during the first quarter, while the lowest prices of the year prevailed near the close. The range between the high and the low points of the year for common rosin was 75c. per barrel, the maximum price being $6.35 and the minimum $5.60 per barrel. Grade I ranged during the year from $6.40 to $5.60 per barrel, showing a swing of 80c. per barrel. The high for W W rosin during the year was $8.25 and the low $7 per barrel, showing a range of $1.25 per barrel. The differences between the high and low prices for most grades during 1923 were smaller than in recent preceding years.

Minor Naval Stores

Pine oil at the opening of the year was quoted in the New York market at 85c. per gallon for steam distilled. It declined in January to 80c. per gallon, where it stood during the remainder of the first half of the year. In the second half of the year the tendency of the market was downward, owing to the conservative character of the demand and keener competition among sellers, the closing quotation for the year being 65c. per gallon. Tar was firm during the first half of the year, the opening quotation being $12.50 per barrel for kiln burned, the market subsequently advancing to $13.50, the rise being due to diminished production. Later in the year the market weakened, owing to bearish developments in other naval stores and sluggishness of trade, $11 per barrel being the ruling quotation at the close of the year. Pitch was maintained at $6 per barrel during the first half of the year and at $5.50 during the second half, the decline being due to weakness in other pine products and dullness of trade.

London Naval Stores Market in 1923

A comprehensive review of the London markets for turpentine and rosin, with comparisons back over a number of years, has been furnished by Lowden, Connell & Co., as follows:—

Turpentine

The year 1923 opened with turpentine markets advancing everywhere on values that were already high. Another boom year in building in the United States was confidently anticipated. Stocks of turpentine at all ports were low. Everything pointed to a maintenance for some months of the high values which prevailed during the latter half of 1922.

Prices reached their highest level in the United States during the first week in April. The spot price in London was 113s. 9d. In France, also, prices were very high, owing to the scarcity of supplies at the end of the non-producing season, when, toward the end of April, prices in Savannah dropped considerably. The slump weakened the London market, but in consequence of the meager stocks at that port the decline was more gradual, forward quotations being more affected than spot prices. The lowness of visible supplies for London caused a sharp but short-lived advance in the middle of May, and the spot quotation reached 116s. 6d., the highest point of the year.

From this point onward, with London visible supplies increasing, values steadily declined until, at the beginning of September, 69s. 3d., the lowest spot quotation for the year, was reached. The market rallied toward the middle of that month, and from this period until the end of the year a steady and rather featureless market ruled, spot prices fluctuating quietly between 71s. 6d. and 75s.

London stocks at the close of the year appeared to be adequate to meet requirements until the end of April next. In this connection it is interesting to note the January-April deliveries of previous year:—

	1923.	1922.	1921.	1913.
Barrels	28,198	27,431	40,856	31,298

The total London deliveries for the year 1923 were 92,776 barrels, as against 84,658 barrels in the previous year, an increase of 8,118 barrels. This increase took place during the last six months of the year, when prices were much lower than for the previous six months and for the corresponding period of 1922. Of the total deliveries only 8,580 barrels were French turpentine.

Lowest and Highest Prices of American Turpentine on Spot, London (Per Cwt.)

	1919. Low.	1919. High.	1920. Low.	1920. High.	1921. Low.	1921. High.	1922. Low.	1922. High.	1923. Low.	1923. High.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January	*105 0	105 0	156 6	193 0	80 0	100 0	68 3	74 6	101 0	110 6
February	100 0	100 0	100 6	210 0	60 0	80 0	65 6	73 9	101 0	109 9
March	95 0	95 0	217 6	246 6	48 0	60 0	61 3	68 0	108 3	111 9
April	95 0	99 0	191 0	220 0	44 6	73 6	66 3	85 0	110 0	114 0
May	99 0	105 0	185 0	210 0	81 0	105 0	67 9	90 0	100 0	116 6
June	87 6	105 0	142 0	170 0	74 0	85 0	67 0	119 0	82 9	104 0
July	86 0	123 0	140 0	190 0	75 0	115 0	93 0	114 0	72 6	82 3
August	121 3	130 0	142 0	158 0	63 0	77 0	86 6	95 0	70 3	72 0
September	125 6	130 6	140 9	146 0	62 0	70 6	94 0	103 3	69 3	74 9
October	119 9	127 6	121 0	142 3	64 6	69 0	102 9	125 0	72 6	75 0
November	125 6	128 0	110 0	122 0	65 9	71 0	111 0	123 3	71 6	73 9
December	126 6	156 6	100 0	105 0	66 6	70 3	94 6	108 3	72 0	73 3

* Quotations are for French to April, 1919.

Average Price of American Turpentine for Year, 1900 to 1923

	s. d.		s. d.		s. d.		s. d.		s. d.
1900	35 4	1905	45 7	1910	47 8	1915	38 5	1920	104 10
1901	27 1	1906	47 3	1911	47 9	1916	45 10	1921	72 9
1902	33 1	1907	44 3	1912	38 1	1917	66 1	1922	89 4
1903	42 2	1908	31 9	1913	30 1	1918	116 2	1923	89 10
1904	41 2	1909	33 11	1914	33 0	1919	111 2		
Averages	35 9		40 7		38 4		73 6		104 2

Average of 24 years, 57s.

Imports of Turpentine Into Great Britain (Long Tons)

From—	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
United States	20,902	18,429	10,132	1,011	19,057	16,575	12,950	16,949	20,949
France	2,025	261	9	1,214	1,784	3,729	713	2,336	1,220
Portugal and Spain	3,337	2,849	919	941	1,339	703	786	329	69
Russia, Scandinavia, etc.	211	....	....	....	562	628	279	413	627
All other foreign countries	....	....	....	....	....	924	696	144	282
Totals	26,475	21,539	11,060	3,166	22,742	22,559	15,424	20,171	23,147
Percentage from U. S.	78.95	85.56	91.61	31.93	83.80	73.47	83.96	84.03	90.50

Stocks of Turpentine in London at the End of Year

Barrels

	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
American	32,952	36,785	17,774	2,596	29,776	46,565	14,168	17,454	31,427
French	1,341	521	67	2,213	454	4,108	246	2,113	659
Spanish, etc.	7,486	7,689	2,053	546	260	391	....	....	....
	41,779	44,995	19,894	5,355	30,490	51,064	14,414	19,567	32,086
Afloat	....	....	....	....	....	....	....	4,850	....
Totals	41,779	44,995	19,894	5,355	30,490	51,064	14,414	24,417	32,086
Price in London	54s.	53s. 9d.	124s.	105s.	156s. 6d.	100s.	68s. 3d.	103s. 9d.	72s.

Rosin

The increased production in America kept prices lower, although during the last few weeks of the year pale grades became firmer. Demand, however, appears to have increased, and imports of rosins into the United Kingdom show an increase on those of 1922. Owing to the high prices that ruled in France, a greater proportion of orders was placed in America.

Average London Quotations of Dark Rosin (Per Cwt.)

	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January	11 1½	22 3½	26 9	65 1½	55 0	54 0	34 6	14 9	14 3
February	11 8	22 3	29 9	65 6	45 0	57 0	24 9	14 2	13 9
March	11 3½	21 4	32 4	64 6	40 0	58 0	17 6	13 0	13 6
April	12 0	21 3	32 9	64 6	36 9	58 0	13 9	13 0	13 6
May	12 8	21 0	32 9	63 0	35 0	56 0	17 0	13 4½	13 6
June	12 2	21 3	32 9	62 7½	38 3	50 0	17 0	13 7½	13 4½
July	12 2	21 0	32 6	60 0	38 6	45 0	15 9	13 10	13 0
August	11 9½	21 3	31 8	60 0	41 0	45 0	16 0	14 0	13 0
September	12 2	21 6	33 0	55 0	48 0	47 0	17 0	14 6	13 0
October	13 11½	21 6	34 11	55 0	50 0	46 0	16 9	15 8	12 10½
November	18 3½	21 9	46 6	55 0	50 0	45 0	16 3	16 3	12 9
December	21 6	24 5	60 6	55 0	50 0	39 0	16 3	15 0	12 9
Averages	13 5	21 9	35 6	60 5	43 11	50 0	18 6	14 3	13 3

Average Price of Dark Rosin for Year, 1900 to 1923

	s. d.		s. d.		s. d.		s. d.		s. d.
1900	5 3	1905	9 1	1910	12 9	1915	13 5	1920	50 0
1901	4 9	1906	10 0	1911	16 4	1916	21 9	1921	18 6
1902	4 8	1907	10 5	1912	16 6	1917	35 6	1922	14 3
1903	6 1	1908	8 4	1913	11 9	1918	60 5	1923	13 3
1904	7 11	1909	8 8	1914	9 6	1919	43 11		
Averages	5 9		9 4		13 4		35 0		24 0

Average of twenty-four years, 17s. 2½d.

Imports of Rosin Into Great Britain (Long Tons)

From—	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
United States	52,931	75,745	65,114	18,275	57,240	31,283	19,401	43,057	56,880
France	37,856	14,580	14,864	15,806	21,366	22,568	14,155	10,259	5,047
Spain and Portugal	10,579	9,550	6,350	3,378	9,617	4,860	6,151	7,701	5,705
All other countries	1,047	215	....	162	798	1,765	1,237	2,604	2,882
Totals	102,413	100,090	86,328	37,621	89,021	60,476	40,944	63,621	70,514
Percentage from U.S.	51.68	75.68	75.43	48.58	64.30	51.73	47.39	67.67	80.66

Naval Stores: Record of Prices

Turpentine

Turpentine

On October 18, 1871, the price was 71c. to 73c.; 1881, 52c. to 53c.; 1891, 37c. to 37½c.; 1901, 38c. to 38½c.; 1911, 51c.; 1913, 45c. to 45½c.; 1920, April, $2.65.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.92	$0.82½	$1.55	$1.47
February	.92	.90	1.55	1.43
March	.85	.85	1.57	1.53
April	.86	.86	1.61	1.39
May	.97	.92	1.24	1.08
June	1.48	.95	1.06	1.02
July	1.25	1.20	.98	.93
August	1.30	1.16	.96	.95
September	1.34..	1.23	1.02	.95
October	1.64	1.36	1.03	.98
November	1.64	1.55	.99	.94
December	1.51	1.38	.95	.93
Year	1.64	.82½	1.61	.93

Turpentine, Wood, Steam Distilled

On May 13, 1907, the price was 63½c.; October 18, 1911, 50c.; 1913, 30c. to 35c.; 1920, June, $2.30.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.78	$0.78	$1.48	$1.40
February	.78	.78	1.45	1.36
March	.78	.78	1.49	1.45
April	.78	.78	1.46	1.28
May	.78	.78	1.15	.95
June	.78	.78	.98	.96
July	1.20	1.12	.90	.88
August	1.18	1.05	.85	.85
September	1.24	1.12	.90	.85
October	1.55	1.24	.90	.87
November	1.55	1.48	.90	.86
December	1.45	1.30	.86	.86
Year	1.55	.78	1.49	.85

Turpentine, Wood, Destructive Distilled

On May 13, 1907, the price was 63½c.; October 18, 1911, 45c.; 1913, 25c. to 30c.; 1919, November, $1.60.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.75	$0.75	$1.36	$1.23
February	.75	.75	1.30	1.12
March	.75	.75	1.30	1.25
April	.75	.75	1.20	1.02
May	.75	.75	.95	.80
June	.75	.75	.75	.72
July	1.18	1.10	.75	.72
August	1.15	1.03	.65	.65
September	1.20	1.09	.70	.65
Octcber	1.40	1.20	.70	.70
November	1.40	1.34	.75	.75
December	1.28	1.18	.75	.75
Year	1.40	.75	1.36	.65

Rosins

Rosin, Common Strained

On October 18, 1871, the price was $4.10 to $4.17½; 1881, $2.50 to $2.52½; 1891, $1.32½ to $1.35; 1901, $1.42½; 1911, $6.90; 1913, $3.95 to $4.25; 1920, May, $20.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$5.50	$5.30	$6.20	$6.10
February	5.40	5.30	6.00	5.85
March	5.25	5.20	6.20	6.00
April	5.30	5.15	6.35	6.15
May	5.30	5.30	6.10	5.85
June	5.55	5.55	5.90	5.80
July	5.80	5.55	5.90	5.80
August	6.25	5.90	5.75	5.75
September	6.25	6.20	5.95	5.75
October	7.05	6.60	5.95	5.80
November	6.90	6.45	5.80	5 80
December	6.35	6.20	5.80	5.60
Year	7.05	5.15	6.35	5.60

Rosin, Florida, Grade I

On February 15, 1881, the price was $2.50; October 18, 1881, $7.50; 1891, $2; 1901, $1.75; 1911, $7.10; 1913, $4.10 to $4.15; 1919, September, $21.25.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$5.60	$5.30	$6.30	$6.20
February	5.60	5.40	6.30	5.85
March	5.35	5.25	6.40	6.15
April	5.35	5.20	6.40	6.30
May	5.95	5.95	6.10	6.00
June	6.20	5.70	6.20	6.00
July	6.40	6.20	6.00	5.90
August	6.40	6.35	5.95	5.90
September	6.65	6.40	5.95	5.90
October	7.25	6.60	5.95	5.80
November	6.95	6.45	5.80	5.80
December	6.45	6.30	5.80	5.60
Year	7.25	5.20	6.40	5.60

Rosin, Florida, Grade K

On February 15, 1881, the price was $2.75; October 18, 1891, $2.20; 1901, $2.30; 1911, $7.15; 1913, $4.70 to $4.80; 1919, July, $22.75.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$6.15	$6.10	$6.50	$6.25
February	5.85	5.80	6.45	6.05
March	5.35	5.25	6.45	6.20
April	5.45	5.30	6.40	6.35
May	5.45	5.45	6.15	6.00
June	6.50	6.10	6.20	6.00
July	6.50	6.45	6.00	5.90
August	6.45	6.35	5.95	5.90
September	6.65	6.50	6.00	5.90
October	7.35	6.60	6.00	5.85
November	6.95	6.45	5.85	5.80
December	6.50	6.50	5.90	5.60
Year	7.35	5.25	6.50	5.60

Rosin, Water White

On January 21, 1885, the price was $5; October 18, 1891, $4; 1901, $4.10; 1911, $8; 1913, $6.95 to $7.10; 1919, September, $25.50.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$7.75	$7.25	$8.25	$8.00
February	7.85	7.50	8.00	7.95
March	7.50	7.45	8.10	7.95
April	7.30	7.25	8.00	8.00
May	7.20	7.20	7.95	7.75
June	8.25	8.25	7.50	7.50
July	8.25	8.00	7.50	7.25
August	8.00	8.00	7.25	7.25
September	8.00	8.00	7.25	7.25
October	8.25	8.00	7.00	7.00
November	8.25	8.15	7.00	7.00
December	8.00	8.00	7.15	7.00
Year	8.25	7.20	8.25	7.00

Other Naval Stores

Pine Oil, Steam Distilled

On June 13, 1912, the price was 35c. to 45c.; October 18, 1913, 35c. to 45c.; 1920, July, $2.10.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$1.20	$1.20	$0.85	$0.80
February	1.10	1.00	.80	.80
March	1.00	1.00	.80	.80
April	1.00	1.00	.80	.80
May	1.00	1.00	.80	.80
June	.95	.95	.80	.80
July	.80	.80	.75	.75
August	.80	.80	.72	.72
September	.80	.80	.70	.70
October	.80	.80	.70	.70
November	.80	.80	.70	.65
December	.80	.80	.65	.65
Year	1.20	.80	.85	.65

Tar, Kiln Burned

On October 18, 1871, the price was $3.25 to $3.37½c.; 1881, $3.25; 1891, $1.80; 1901, $1.90; 1911, $7.75; 1913, $7; 1920, February, $15.50.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$10.00	$9.50	$12.50	$12.50
February	10.00	10.00	13.50	12.50
March	10.00	10.00	13.50	13.50
April	10.00	10.00	13.50	13.50
May	10.00	10.00	13.50	13.50
June	9.00	9.00	13.50	13.50
July	9.00	9.00	13.50	12.00
August	10.00	9.00	11.00	11.00
September	12.50	11.00	11.00	11.00
October	12.50	12.50	11.00	11.00
November	12.50	12.50	11.00	11.00
December	12.50	12.50	11.00	11.00
Year	12.50	9.00	13.50	11.00

Tar Oil, Genuine Distilled

On April 4, 1914, the price was 20c. to 30c.; 1920, December, 77c.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.50	$0.50	$0.50	$0.50
February	.50	.50	.50	.50
March	.50	.50	.50	.50
April	.50	.50	.50	.50
May	.50	.50	.50	.50
June	.50	.50	.50	.50
July	.50	.50	.50	.50
August	.50	.50	.50	.50
September	.50	.50	.50	.50
October	.50	.50	.50	.50
November	.50	.50	.50	.50
December	.50	.50	.50	.50
Year	.50	.50	.50	.50

Pitch

On October 18, 1871, the price was $4 to $4.25; 1881, $2.25 to $2.30; 1891, nominal; 1901, $1.60 to $1.75; 1911, $4 to $4.50; 1913, $4.25 to $4.50; 1920, June, $15.

	Per barrel— 1922. H.	1922. L.	1923. H.	1923. L.
January	$6.00	$6.00	$6.00	$6.00
February	6.00	6.00	6.00	6.00
March	6.00	6.00	6.00	6.00
April	6.00	6.00	6.00	6.00
May	6.00	6.00	6.00	6.00
June	6.00	6.00	6.00	6.00
July	6.00	6.00	6.00	6.00
August	6.00	6.00	5.50	5.50
September	6.00	6.00	5.50	5.50
October	6.00	6.00	5.50	5.50
November	6.00	6.00	5.50	5.50
December	6.00	6.00	5.50	5.50
Year	6.00	6.00	6.00	5.50

Rosin Oil, First Rectified

On October 18, 1871, the price was 28c.; 1881, 14½c.; 1891, 10c. to 10½c.; 1901, 15c.; 1911, 36c.; 1913, 27c.; 1920, January, 97c.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.37	$0.36	$0.45	$0.45
February	.37	.37	.46	.45
March	.37	.37	.46	.46
April	.37	.37	.46	.46
May	.37	.37	.46	.46
June	.39	.37	.46	.46
July	.39	.39	.46	.46
August	.39	.39	.45	.45
September	.41	.39	.45	.45
October	.45	.41	.45	.44
November	.45	.45	.44	.43
December	.45	.45	.43	.43
Year	.45	.36	.46	.43

Rosin Oil, Second Rectified

On October 18, 1871, the price was 32c.; 1881, 17½c.; 1891, 12c.; 1901, 17c.; 1911, 41c.; 1913, 38c.; 1920, February, $1.05.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.39	$0.39	$0.47	$0.47
February	.39	.39	.48	.47
March	.39	.39	.48	.48
April	.39	.39	.48	.48
May	.39	.39	.48	.48
June	.41	.39	.48	.48
July	.41	.41	.48	.48
August	.41	.41	.47	.47
September	.43	.41	.47	.47
October	.47	.43	.47	.46
November	.47	.47	.46	.46
December	.47	.47	.46	.46
Year	.47	.39	.48	.46

Rosin Oil, Third Rectified

On October 18, 1871, the price was 35c.; 1881, 20½c.; 1891, 14c. to 14½c.; 1901, 19c.; 1911, 46c. 1913, 48c.; 1920, March, $1.15.

	Per gallon— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.47	$0.46	$0.52	$0.52
February	.47	.47	.53	.52
March	.47	.47	.53	.53
April	.47	.47	.53	.53
May	.47	.47	.53	.53
June	.49	.47	.53	.53
July	.49	.49	.53	.53
August	.49	.49	.52	.52
September	.50	.49	.52	.52
October	.52	.50	.52	.50
November	.52	.52	.50	.50
December	.52	.52	.50	.50
Year	.52	.46	.53	.50

Methanol and Lime Acetate: Output, Sales, Stocks

Production of acetate of lime (calcium acetate) totaled 164,396,124 pounds in 1923. This compares with 125,345,124 pounds in 1922. Shipments in 1923 were 161,091,798 pounds, as against 164,189,061 pounds in the previous year. During 1923 the output of methanol amounted to 8,593,727 gallons, as compared with 6,808,911 gallons in 1922, while 1923 shipments of methanol totaled 8,000,617 gallons, as against 7,626,761 gallons in 1922.

The wood chemical industry consumed 899,943 cords of wood during the year, in comparison with 771,435 cords in 1922. December 31, 1923, distillation plants had stocks of wood aggregating 837,783 cords, 13,190 cords less than they had a year earlier.

Monthly records of 1923 and 1922 production, consumption and stocks of acetate of lime and methanol compare as follows:—

	Acetate of Lime — Pounds — Production.	Shipments (or use).	Stocks end of month.	Methanol — Gallons — Production.	Shipments (or use).	Stocks end of month.
1922						
January	8,548,314	9,113,578	57,281,460	494,981	307,298	3,033,460
February	8,841,406	8,337,090	57,843,236	483,439	316,091	3,178,484
March	10,462,128	10,949,385	57,296,877	569,450	514,982	3,278,495
April	8,141,593	11,873,250	52,464,416	450,529	547,380	3,194,568
May	8,400,243	14,227,764	46,221,838	458,739	534,968	3,115,562
June	8,591,572	16,176,544	36,824,416	484,822	556,366	3,047,116
July	9,670,504	17,817,323	28,839,858	510,489	594,909	2,962,948
August	*9,511,658	15,678,578	*22,263,718	*508,250	663,328	*2,788,023
September	*9,771,177	*12,844,053	*18,615,942	*522,620	1,017,744	*2,272,585
October	*12,191,979	*12,073,680	*18,607,019	*643,379	*797,190	*2,109,222
November	*15,077,374	*15,344,522	*18,364,855	*798,382	902,258	*2,005,803
December	*16,137,185	*19,753,294	*15,405,431	*883,831	894,347	*2,006,617
1923						
January	*15,720,839	16,261,472	*14,142,952	*893,418	806,339	*2,000,039
February	*13,469,524	13,635,149	*14,498,522	*730,590	667,929	*2,044,429
March	*14,959,573	*16,490,330	*12,901,779	*791,457	*689,028	2,133,098
April	13,698,154	14,869,803	*11,892,803	713,643	684,261	2,194,789
May	14,822,716	17,937,601	*9,007,287	798,369	566,870	2,429,617
June	*14,439,164	*13,995,065	*9,755,803	*736,896	629,250	*2,536,412
July	*13,179,716	*13,145,388	*9,767,173	*652,955	514,579	*2,669,895
August	*12,960,416	7,723,885	*14,623,749	*654,822	*481,111	*2,866,218
September	*11,674,842	*8,227,072	*18,034,111	*574,124	526,623	*2,902,923
October	*12,972,591	*12,628,153	*18,548,830	*666,364	*732,399	*2,851,938
November	*14,684,883	*14,033,761	*19,249,055	*756,746	*889,362	*2,726,866
December	11,813,706	12,144,119	18,790,752	624,433	753,166	2,592,298

* Revised.

Imports of Non-Coal-Tar Organic Chemicals

The following table shows imports of a selected list of organic chemicals of non-coal-tar origin in 1922 and 1923; it is expected that monthly figures for these products will be reported during 1924 in the monthly bulletins of the Department of Commerce:—

	1922 — Pounds.	1922 — Value.	1923[3] — Pounds.	1923[3] — Value.
Acetaldehyde	[1]82,390	$13,192	163,913	$26,338
Acetic anhydride	[2]1,302	244	2,535	913
	[1]15	7	.....	.....
Borneol	.....	.....	.....	.....
Carbon tetrachloride	[2]44,092	1,251	1,429	130
	[1]22,039	603	.....	.....
Chloroform	[1]15	3	381	133
Citronellol	.....	.....	.....	.....
Diethylamine	.....	.....	.....	.....
Diethyl barbaturic acid (barbital)	.....	.....	.....	.....
Dihydroxy tartaric acid	.....	.....	.....	.....
Ethyl acetate	[2]200	276	27,202	11,664
Ethyl ether	[1]906	158	103	75
Ethyl malonate	.....	.....	.....	.....
Formaldehyde	[2]407	67	166	67
	[1]300	50	.....	.....
Gallic acid	[2]4,490	2,387	6,048	2,743
Glycerophosphoric acid and salts of	[2]5,460	4,789	36,886	36,650
	[1]7,021	3,870	.....	.....
Hexamethylenetetramine	[1]16,010	7,765	46,823	24,408
Para formaldehyde	200	104	.....	.....
Pyrogallic acid	[1]1	3	342	417
Trichloroethylene	[1]110,230	5,863	87,616	4,098
Urea	[2]182,257	43,891	.....	.....
	[1]78,379	17,670	37,614	4,980

[1] September 22 to December 31, 1923.
[2] January 1 to September 21, 1923.
[3] Eleven months.

Vegetable Oil Trade Statistics for 1923

(Compiled from data collected by the Bureau of the Census and the Bureau of Fisheries)

	Pounds — Production.	Consumption.	Imports.	Exports re-exports.	Factory and warehouse stocks Dec. 31, 1923.
Cottonseed, crude	971,001,277	936,390,794	*.....	27,730,923	140,863,176
Cottonseed, refined	858,627,497	676,605,898	25,044	21,826,156	146,962,600
Peanut, virgin and crude	5,358,647	7,304,910	8,008,622	287,336	1,295,786
Peanut, refined	5,810,364	7,548,438	*.....	*.....	671,967
Coconut, or copra, crude	235,918,724	361,518,776	178,937,115	*.....	49,853,260
Coconut, or copra, refined	174,183,210	211,922,771	*.....	20,721,188	27,288,893
Corn, crude	111,343,267	103,010,643	†.....	*.....	7,096,775
Corn, refined	82,829,620	18,584,292	†.....	4,361,100	8,824,790
Soya bean, crude	1,404,035	19,333,591	40,940,110	1,528,316	7,846,514
Soya bean, refined	2,567,769	6,743,425	*.....	*.....	1,453,175
Olive, edible	570,117	2,156,622	77,190,417	76,183	6,030,669
Olive, inedible	163	4,366,637	40,604,534	†.....	1,399,155
Sulphur oil, or olive foots	.....	24,170,496	*.....	*.....	4,305,022
Palm kernel, crude	.....	4,565,279	*.....	*.....	1,143,701
Palm kernel, refined	746,251	398,354	*.....	*.....	71,316
Rapeseed	.....	11,430,837	15,932,475	†.....	3,300,130
Linseed	653,563,870	380,676,385	43,096,714	3,013,216	97,464,669
Chinese wood or tung	.....	72,097,954	87,298,724	2,712,485	19,290,499
Chinese vegetable tallow	.....	5,562,327	8,547,617	†.....	2,440,656
Castor	37,382,715	17,696,862	†.....	†.....	3,944,193
Palm	.....	114,387,613	130,455,883	1,684,332	18,762,851
All other	6,076,114	13,912,746	19,320,652	10,387,806	2,597,974

* No distinction. † Not specified.

Cottonseed Products Records, 1923-24 Season

Manufactured, August 1, 1923, to January 31, 1924

State.	Crude oil, pounds.	Cake and meal, tons.	Hulls, tons.	Linters, 500-lb. bales.
Alabama	30,251,551	42,051	26,595	18,575
Arkansas	39,518,240	60,063	42,849	29,313
Georgia	51,409,782	77,734	41,544	33,982
Louisiana	25,390,766	40,278	24,296	17,814
Mississippi	60,497,534	78,421	55,742	42,159
North Carolina	70,594,164	104,488	55,142	41,010
Oklahoma	46,407,199	80,660	44,765	34,642
South Carolina	44,080,197	67,805	35,387	33,095
Tennessee	36,815,117	53,726	40,902	29,257
Texas	269,978,629	449,050	283,175	186,333
All other	32,576,207	45,806	31,750	19,532
United States	707,519,386	1,100,082	682,147	485,712
Totals, preceding season	759,779,684	1,137,076	726,298	440,770

On Hand at Oil Mills, January 31, 1924

State.	Crude oil, pounds.	Cake and meal, tons.	Hulls, tons.	Linters, 500-lb. bales.
Alabama	5,223,586	11,705	4,285	5,792
Arkansas	7,489,801	17,918	13,197	10,576
Georgia	7,078,037	21,405	8,462	14,377
Louisiana	4,740,037	14,104	5,327	12,014
Mississippi	15,837,528	21,365	13,282	16,936
North Carolina	9,423,021	23,379	12,686	14,807
Oklahoma	17,097,161	20,342	12,178	16,624
South Carolina	5,073,235	22,418	7,159	12,302
Tennessee	4,091,380	11,227	10,018	12,212
Texas	32,849,124	48,273	74,973	45,627
All other	1,670,810	7,093	4,218	8,106
United States	110,573,720	219,229	165,785	169,373
Totals, preceding season	95,787,416	190,513	169,010	85,199

Miscellaneous Oils: Market Review

Business in the general list of oils, fats and greases during the year 1923 was comparatively quiet much of the time. There were occasional periods of activity, it is true, but they were usually of rather short duration, many consumers being disposed, for one reason or another, to pursue a conservative course in making purchases. This attitude on the part of buyers was due to unfavorable developments from time to time in the general business and financial situation, and also because of disturbing political events abroad. The course of foreign exchange rates at times also had a tendency to curtail business in various oils and fats in this country. At times, too, there was a scarcity of some commodities, notably those of foreign origin, a fact which made business in those products quiet, particularly as there was also scarcity of such articles in the primary markets abroad.

Despite the conservative character of business in most products, however, there were many developments of interest during the year. Oils of Oriental origin in some cases sold at the highest prices recorded for several years past, and the same was true of some animal and fish products. A heavy foreign demand for American lard was a feature of the market, the big purchases being due to a shortage of animal fats on the Continent. Purchases by Germany, notwithstanding the unfavorable financial and political conditions in that country, were materially larger than in the preceding year. Tallow was another active feature of the market, soap makers being heavy buyers at times.

Both lard and tallow sold at high prices during the year. The movement of live hogs to Western markets was on an extremely heavy scale during the year, but the effect of this as a factor in the making of lard prices was offset by the activity of the foreign demand for the latter product. The big export movement of lard also had the effect of keeping supplies down to an unusually low level much of the time during the year, despite the magnitude of the receipts of hogs.

Developments in China wood oil were of a kind to create something like a sensation. The highest prices on record were established in April, sales occurring on spot at 40c. per gallon in barrels, and still higher prices being demanded by some dealers. The big rise was due to a shortage in the output in China the yield being 20 percent below normal. Moreover, traffic conditions on the rivers of China were bad, low water interfering with the movement of oil from the interior to the shipping ports. The shipment of oil from the producing regions was also checked by bandits, who were active in many parts of China.

Cottonseed oil sold here and in the South last year at the highest prices recorded since 1920, the advance having a strengthening influence on various other oils and fats. The rise in cottonseed oil was due to the fact that the cotton crop last year, for the third successive season, was a partial failure. Production of fish oils was generally below normal and supplies were generally light at the close of the year, crude whale oil being scarce.

Vegetable Oils

China wood oil was the leading feature of the list of vegetable oils. At the opening of the year the price of spot oil in barrels was 14½c. per lb. A practically uninterrupted advance occurred during the first four months of the year, sales occurring in April at 40c. per lb. This established a new high record price. The rise was due to a shortage in production, unfavorable political conditions in China and scarcity in the world's markets. The shortage of supplies in European markets was so great that foreign buyers were forced to turn to this country in an effort to secure stocks, and sales occurred here at times for shipment to England and the Continent. The oil production in China was 20 percent short of normal and the movement of oil from the interior of the country to the shipping port was hampered by political disturbances and a lack of sufficient water in the rivers. Consignments of oil were frequently seized by bandits and held for ransom. The great advance in prices, however, had the effect of checking consumption and prices commenced to recede in May, a reaction to 28c. per lb. occurring in that month. During the remainder of the year the tendency of the market was downward, the price declining in December to 21c. per lb. The sharp setback in prices failed to stimulate consumption to the extent that had been expected, consumers continuing to adhere to a conservative course in making purchases, especially as reports from China late in the year pointed to a normal production for the ensuing season.

The tendency of coconut oil was upward at times, Ceylon grade in cooperage selling on the spot at 10¼c. per lb. and Cochin grade at 11c., these prices being established in May. The advance was due to bullish developments in cottonseed oil in this country and in copra and coconut oil in the Far East. Prices in the latter market advanced, with the offerings very light at times. This was especially true of copra, makers of coconut oil in Europe being inclined to pay higher prices than were offered by producers in this country. Soap makers were good buyers of coconut oil on the Pacific Coast at times. Later in the year the tendency of prices was reactionary, Ceylon grade oil receding to 9c. and Cochin to 9⅜c. per lb., though towards the close of the year prices were again strengthened by bullish developments in cottonseed oil and buying by soap makers and other consumers. Copra at the opening of the year was quoted in the local market at 5c. per lb., but by March the price had risen to 6c. per lb., where it remained until May, when there was a decline to 5c. per lb., this being succeeded by a further decline to 4½c. per lb. During the last quarter of the year the market was firmer, the price rising to 5¼c. per lb. in December.

Denatured olive oil at the opening of the year was quoted at $1.15 per gallon and it was maintained at that price until August, when a decline occurred to $1.12 per gallon. Still later in the year there was a further decline to $1.10 per gallon, this price being in effect at the close of the year. The decline was due to quietness of trade, this offsetting bullish reports from Europe in regard to the olive crops and the probable production of oil. Owing to bad weather in Europe the olive crops in the various countries were below normal and in Spain soap makers endeavored to have the exportation of olive oil and olive oil foots prohibited. The shortage in the olive production in some parts of Europe was said to be more than 50 percent as compared with a normal season.

Olive oil foots ranged between 9c. and 9½c. per lb. in the first quarter of 1923, declining to 8c. in the second quarter and to 7¾c. per lb. in the first month of the third quarter. In August the market advanced to 8½c., in November to 9¼c. and in December to 9¾c. per lb. During the latter part of the year there was a material shrinkage in supplies, spot foots being unobtainable in some quarters at the close of the year, while offerings for shipment from Spain, owing to the proposed embargo on exports, became very light.

There were frequent changes in palm oil prices, due to the many variations in tallow. Lagos palm oil on spot at the opening of the year was quoted at 7¾c. It advanced to 8c. later on and subsequently to 8⅜c., the latter figure being established in March. During the second quarter and also much of the third quarter of the year the tendency of the market was downward, the price falling to 6¾c. per lb. in July. Later the tendency of the market was upward, the price rising to 8¾c. per lb. in December. There was a good demand for palm oil much of the time, the importations for the year exceeding those in the previous year by approximately 70,000,000 pounds. Palm kernel oil followed the course of palm oil, the general tendency of prices being upward for a time, after which there was a gradual decline, with a rise still later. Prices covered a range of 1⅝c. per lb. during the year, the lowest price being 8¼c. per lb. and the highest 9⅝c. per lb.

Domestic peanut oil, crude and refined, remained at high prices during much of the year. Crude at the opening of the year was quoted at 12½c. per pound at the mills. Soon after the opening of the year it advanced to 15c., and later to 15½c. The advance was followed by a reaction to 13c. In December there was a decline to 12c. Refined oil on spot was quoted in January at 16½c. It advanced in March to 18c., declining in May to 16c., where it remained until November, when it declined to 15c. In December there was a decline to 14½c. per pound. Business in the local market was quiet as a rule during the year, owing to the smallness of supplies, the market being bare of offerings at times.

Perilla oil covered a range of 3c. per pound during the year. At the opening of the year there were sellers at 13½c. per pound. In February the market had risen to 15¼c. per pound, and in March to 16c., there being a further rise to 16½c. in April. The advance was due to a shortage in production in the Orient. Later in the year, however, the tendency of the market was downward, a reaction to 14c. occurring in October, the setback being due to a falling off in demand.

The trend of crude soya bean oil was upward early in the year, owing to bullish reports from Manchuria, where the market was influenced by a shortage of supplies of beans and an active foreign demand for oil. On the spot here crude oil in barrels ranged during the year between 10⅜c. per pound and 13c. per pound, the low figure ruling at the opening of the year and the high being reached in March. Later the tendency was downward, the price receding to 10½c. in September, recovering in the last month of the year to 11¼c. Crude corn oil was higher throughout 1923 than it was in the previous year, owing to bullish developments in cottonseed oil and a rise in corn. In the local market the price of crude corn oil in barrels ranged from 9¾c. to 12½c. per pound, the highest price being established in March and the lowest in August.

Animal Fats and Oils

A development of importance in the market for animal fats last year was a heavy increase in our foreign trade in lard, exports being so large as to create widespread discussion in trade circles. Shipments to Germany showed a large increase, the total exports for the year to that country being nearly 377,000,000 pounds, or about 150,000,000 pounds more than in the previous year. This gain in exports to Germany in the face of bad financial and political conditions in that country was regarded as a remarkable showing. Our exports of lard to all European destinations in 1923 were more than 1,035,000,000 pounds, or an increase of nearly 270,000,000 pounds over the previous year. The big exports of lard were traceable to a shortage of animal fats in European countries.

Although the movement of live hogs to the markets of this country was larger than in any preceding year, stocks of lard in the West, owing to the enormous export movement, were unusually small during the year. Lard prices in this market were at high levels much of the time, the high point for Middle Western grade bing 14.80c. per pound, as compared with a high in the previous year of 12.65c. per pound. City lard ranged from a low of 10.75c. per pound in July to a high of 14.25c. per pound in November. American lard in the Liverpool market showed noteworthy strength at times, the spot prices in December reaching 80s. per cwt., as compared with 64s. at the opening of the year.

The tallow situation was featured by purchases of some unusually large blocks by soap makers at various times during the year, the takings by soap makers in the West being especially heavy. Special tallow at the opening of the year was quoted at 8½c. per pound. It advanced during the latter part of the first quarter of the year to 8⅞c., the general tendency during the second and third quarters of the year being downward, the price dropping to 6½c. in September. Toward the close of the year there was an upturn, the range during December being 7½c. to 7⅞c. per pound. Exports of inedible tallow from this country to all destinations in Europe were larger than in the previous year, the total shipments last year being about 35,000,000 pounds as compared with 29,000,000 in the previous year.

Grease sold at high prices during the past year, the maximum for house grease being 8¾c. per pound as compared with a high of 6¾c. p r pound in the previous year, and of 5½c. in the year before that. There was an active demand from domestic and foreign buyers at times. Production of degras in this country was curtailed, and the market displayed an upward tendency during the first half of the year, though a reaction occurred later. The range for the year on domestic crude was from a low of 3¾c. to a high of 5c. per pound.

Fish Oils

With production in some cases below normal and the demand rather active at times, fish oils in most cases reached higher prices during the past year than they did in the previous year. Production of cod oil was considerably smaller than in the previous year, and during the first half of the period the tendency of prices was upward, Newfoundland oil advancing from 60c. per gallon in January to 71c. in the second quarter of the year. The advance had the effect of checking consumption and later there was a setback, the prices declining to 60c. in September. Subsequently there was an upturn in the market, the shortage of supplies becoming more noticeable, the price rising to 68c. in December.

Crude menhaden oil ranged from 40c. to 52c. per gallon at Southern fish factories during the past year, the highest price being reached in March, and the lowest in July. Early in the year there was a shortage of supplies, but later on fishing results improved, while demand fell off, consumers being disposed to limit their takings at the high prices demanded. Refined menhaden oil also sold at higher prices during the past year than prevailed in the previous year, the low for 1923 being 62c. per gallon for light pressed in barrels, as compared with a low of 49c. in the previous year, while the high last year was 80c. per gallon, against 70c. in the previous year.

Crude whale oil was in good demand last year from makers of soap, and although importations of Norwegan oil were heavy, there was a shortage of supplies late in the year, some dealers not being in a position to accept spot orders for domestic oil at the close of the period, and quotations were generally nominal. Sperm oil, in contrast to other fish oils, sold at comparatively low prices during the year, the high price for natural last year being 96c. per gallon, as compared with $1.60 in the previous year and $1.77 in 1921. Herring, salmon and sardine oil on the average were higher during the past year than in recent preceding years, owing to a shortage of supplies.

Cottonseed Oil

Cottonseed oil was higher throughout 1923 than it was in 1922. The high for crude oil in the Southeast was 10.62½c. per pound, and the low, 8.75c., the former being established in March and the latter in October. These prices compared with a high in the previous year of 10.25c. and with a low of 6.25c. Refined oil on spot ranged from a high of 13.50c. per pound to a low of 10c. per pound, the maximum price being recorded in October and the minimum in December. The high for refined oil in the previous year was 11.75c. and the low 8.20c. In 1921 the high for crude oil in the Southeast was 8.25c. and the low 4c., while the high for refined oil on spot was 10c. and the low 5½c. per pound.

Speculation for an advance in refined oil futures was active for a time, especially during the first half of the year. Bullish operations were favored by bad weather for the cotton crop. Excessive rains were of frequent occurrence in many parts of the region east of the Mississippi while in the Southwest there were prolonged spells of dry, hot weather. These adverse weather conditions more than offset an increase in the acreage under cotton cultivation and for the third successive year there was a marked shortage in cotton production, especially as weevil damage, despite widespread efforts to control the pest by the extensive use of calcium arsenate and other poisons, again reached serious proportions.

Outside public interest in the speculation was stimulated as the season advanced by increasing evidences that the crop was not likely to be much if any larger than in the previous season and, although estimates of the production at one time were in many instances well above a crop of 12,000,000 bales of cotton, these estimates were steadily scaled down as the growing season advanced. Late in the season it became clear that instead of the crop being 12,000,000 bales or more the prospects were for an outturn of not more than 10,000,000 bales, pointing to a supply of seed for crushing of about the same size as was produced in the previous season. There were widespread reports to the effect that owing to bad weather the oil content of the seed was below normal and such talk also had the effect of fostering trade circles concerning the probable bullish sentiment in and out of oil course of prices.

Bullish operations in refined cottonseed oil futures were also favored by the strong financial condition of the South, due to the high prices received for cotton, which enabled holders to market cottonseed and its products only at prices which were satisfactory. Other factors in the rise were an enormous export demand for American lard which absorbed a large portion of the production despite the fact that the movement of live hogs to market was on an unprecedentedly large scale; runaway bull markets for cotton futures here and in the South; advances in vegetable oils which enter into competition with cottonseed oil and favorable developments in the general business situation in this country.

The bull movement, however, carried prices upward to a point where consumption of lard compound and cottonseed oil was curtailed materially, causing a reaction in the latter product. Although the production of cottonseed was smaller than had been expected at one time, it became apparent later in the season that there would be sufficient seed for crushing to meet the curtailed consumption of lard compound and cottonseed oil. Moreover, the markets for cotton futures broke badly at times late in the year, a decline occurred in lard owing to a falling off in the export demand, the movement of hogs to market continued heavy and business in most oils and fats slowed down very noticeably during the closing weeks of the year.

Linseed Oil

The general trend of linseed oil prices was upward during the first half of 1923 and downward during the second half of the year. In January, 83c. per gallon was the prevailing quotation for spot oil cooperage. An advance occurred in February to 96c. per gallon, which was followed by a rise in March to $1.05 per gallon. In April a price of $1.17 per gallon was established, this proving to be the high point of the year. In May the price declined from $1.17 to $1.14 per gallon and in June there was a further decline to $1.10 per gallon. Early in July the price was $1.08 per gallon, but the end of the month the market had dropped to $1 per gallon, the decline

continuing in July to 91c. per gallon, and in August to 83c. per gallon. In October the market turned stronger, there being a recovery to 95c. per gallon, the market fluctuating between that figure and 90c. during the remainder of the year.

The highest price of the past year—$1.17 per gallon—compared with a high in the previous year of 90c. per gallon and with a high in 1921 of 80c. per gallon. The lowest price of the past year—83c. per gallon—compared with a low in 1922 of 64c. per gallon, and with a low of 55c. per gallon in the previous year. The frequent changes in prices were due to the fluctuations in flaxseed prices in the domestic and Buenos Aires markets. In domestic markets speculation for an advance in seed was active at times during the winter and spring months, operations of this character being favored by the smallness of the movement of seed to primary centers in the Northwest and by the activity of trade in linseed oil. The movement of the crop in the Northwest was on so small a scale that the production of linseed oil was materially curtailed.

The tendency of prices in the Buenos Aires and other foreign markets was strongly upward at times. This was due partly to speculation and partly to a shortage of supplies of seed and oil. The high prices prevailing for seed caused a heavy demand in the acreage in the spring, however, and later on, when it became apparent that there was to be a big increase in the production in this country, seed prices commenced to move downward and consumers of linseed oil curtailed purchases. At the close of the year supplies of seed were small, not only in the Northwest, but in this part of the country as well, and production of oil everywhere was below normal. Stocks of oil in crushing plants in the East at the year end were smaller than at the corresponding period in any recent preceding year.

Animal, Fish, Vegetable Oils: Record of Prices

Animal Oils

Degras, American

On November 28, 1903, the price was 2½c. to 2¾c.; October 18, 1911, 2¼c.; 1913, 3c.; 1918, October, 26½c.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04	$0.03¾	$0.04¾	$0.04¾
February	.03¾	.03¾	.04¾	.04¾
March	.03¾	.03¾	.04¾	.04¾
April	.04½	.04½	.04¾	.04¾
May	.04½	.04	.05	.04⅞
June	.04	.04	.04	.04
July	.04¼	.04	.04	.04
August	.04¼	.04¼	.04	.04
September	.04¼	.04¼	.04	.04
October	.04¼	.04¼	.04	.03¾
November	.04¾	.04¾	.03¾	.03¾
December	.04¾	.04¾	.03¾	.03¾
Year	.04¾	.03¾	.05	.03¾

Degras, English

On January 20, 1875, the price was 7½c. to 8c.; October 18, 1881, 9½c. to 10c.; 1891, 3¼c. to 3½c.; 1901, 3½c. to 3⅝c.; 1911, 2½c.; 1913, 3⅛c. to 3¼c.; 1918, October, 28c.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.03¾	$0.03¾	$0.04½	$0.04½
February	.03¾	.03¾	.04½	.04½
March	.03¾	.03¾	.04½	.04½
April	.04½	.04½	.04¼	.04¼
May	.04	.03¾	.04½	.04¼
June	.03¾	.03¾	.03¾	.03¾
July	.04	.03¾	.03¾	.03¾
August	.04	.04	.03¾	.03¾
September	.04	.04	.03¾	.03¾
October	.04	.04	.04¼	.04¼
November	.04½	.04½	.04¾	.04¾
December	.04½	.04½	.04¼	.04¾
Year	.04½	.03¾	.04¾	.03¾

Horse Grease

On March 24, 1875, the price was 80c. to 85c.; the next quotation was November 29, 1913, 6¼c. to 7¼c.; 1918, February, 19c.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.05	$0.05	$0.08½	$0.06¼
February	.05	.05	.09½	.08½
March	.05	.05	.10	.10
April	.05	.05	.10	.10
May	.05½	.05½	.10	.09¼
June	.05½	.05¼	.09½	.09¼
July	.05½	.05½	.08½	.07⅛
August	.05½	.05½	.07½	.07
September	.06	.06	.07	.07
October	.06	.06	.07	.07
November	.06¼	.06¼	.07½	.07
December	.06½	.06½	.07½	.07½
Year	.06½	.05	.10	.06¼

Lard Oil, Extra No. 1

On February 15, 1876, the price was 95c. to $1; October 18, 1881, 85c. to 90c.; 1891, 47c. to 50c.; 1901, 52c. to 54c.; 1911, 60c. to 64c.; 1913, 58c. to 59c.; 1918, October, $1.70.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$0.72	*$0.72	$13.50	$13.00
February	*.72	*.72	13.25	13.25
March	*.72	*.72	13.25	13.25
April	10.00	9.50	13.25	12.75
May	9.75	9.25	12.75	12.50
June	9.75	9.75	12.00	11.00
July	10.25	9.75	11.00	10.50
August	11.25	10.25	11.75	10.50
September	11.25	10.25	12.00	11.50
October	12.25	10.25	11.50	11.00
November	12.25	12.25	11.00	11.00
December	12.50	12.50	11.00	10.75
Year	12.50	*.72	13.50	10.50

* Per gallon.

Lard Oil, No. 2

On October 18, 1871, the price was 65c. to 68c.; 1881, 55c. to 62½c.; 1891, 35c. to 37c.; 1901, 41c. to 42c.; 1911, 56c. to 60c.; 1913, 52c. to 53c.; 1918, September, $1.50.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$0.62	*$0.62	$12.50	$11.75
February	*.65	*.62	12.50	12.50
March	*.65	*.65	12.75	12.50
April	9.25	9.00	12.75	12.00
May	9.00	9.00	12.00	11.00
June	9.00	9.00	11.00	10.00
July	9.50	9.00	10.00	9.50
August	9.75	9.50	10.25	9.50
September	9.75	9.25	11.00	10.25
October	11.00	9.25	10.50	10.00
November	11.25	11.00	10.00	10.00
December	11.25	11.25	10.00	9.75
Year	11.25	*.62	12.75	9.50

* Per gallon.

Neatsfoot Oil, Pure

On October 18, 1871, the price was $1 to $1.10; 1881, 80c. to 90c.; 1891, 60c. to 70c.; 1901, 52c. to 53c.; 1911, 75c. to 80c.; 1913, 64c. to 65c.; 1918, October, $2.50.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$1.07	*$1.07	$13.75	$13.75
February	*1.17	*1.07	13.75	13.75
March	*1.22	*1.22	14.75	13.75
April	18.25	18.00	14.75	14.25
May	18.00	18.00	14.25	14.25
June	18.00	18.00	14.25	14.25
July	18.00	18.00	14.25	13.25
August	18.00	12.75	13.75	13.25
September	12.75	12.75	14.25	13.75
October	13.25	12.75	14.25	13.75
November	13.25	13.25	14.25	13.75
December	13.25	13.25	14.75	14.25
Year	18.25	*1.07	14.75	13.25

* Per gallon.

Oleo Oil, No. 1

On April 24, 1909, the price was 9c. to 14½c.; October 18, 1911, 9¼c. to 11½c.; 1913, 9c. to 12½c.; 1919, June, 35c.

(In tierces)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$0.11	*$0.10¼	$13.50	$13.25
February	*.11	*.10¼	13.50	13.25
March	*.11¼	*.11¼	13.75	13.25
April	*.10½	*.10	14.50	13.75
May	10.75	10.75	14.50	13.50
June	11.00	10.75	13.50	12.00
July	12.00	11.00	12.00	11.75
August	12.00	11.75	11.50	11.25
September	11.75	11.50	13.00	11.50
October	11.80	11.75	14.25	13.25
November	13.75	12.00	15.50	14.25
December	13.75	13.25	16.00	15.50
Year	13.75	*.10	16.00	11.25

* Per pound.

Oleo Oil, No. 2

On July 29, 1918, the price was 26c.; 1919, June, 33c.

(In tierces)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$0.10	*$0.08¾	$11.50	$10.50
February	*.10	*.08¾	11.25	11.00
March	*.10½	*.10½	11.50	11.00
April	10.00	9.00	12.00	11.00
May	9.75	9.75	11.00	10.25
June	10.00	9.75	10.25	9.50
July	11.00	10.00	9.50	9.50
August	10.75	10.75	9.50	9.50
September	10.75	10.50	10.25	9.50
October	10.25	10.00	10.50	10.25
November	10.50	10.25	11.00	10.50
December	10.50	10.50	11.50	11.00
Year	11.00	*.08¾	12.00	9.50

* Per pound.

Red Oil, Distilled

On May 27, 1911, the price was 6½c. to 7½c.; October 18, 1913, 6c. to 6¼c.; 1919, June, 20½c.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.08¼	$0.07¾	$0.11½	$0.11
February	.07¾	.07¾	.11½	.11½
March	.08½	.08½	.11¾	.11½
April	.08½	.08½	.11½	.11½
May	.08½	.08⅝	.11¼	.10¾
June	.08⅝	.08½	.10½	.10½
July	.08½	.08½	.10	.09½
August	.08⅝	.08½	.09¾	.09½
September	.08½	.08¼	.09¾	.09¾
October	.09	.08¾	.09½	.09½
November	.10	.09⅞	.09½	.08½
December	.10½	.10	.08½	.07¾
Year	.10½	.07¾	.11¾	.07¾

Red Oil, Saponified

On October 18, 1871, the price was 55c. to 57c.; 1881, 60c.; 1891, 5c. to 5¼c.; 1901, 6¼c. to 6½c.; 1911, 7c. to 7½c.; 1913, 6½c. to 7c.; 1919, July, 20½c.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.08¼	$0.08	$0.11½	$0.11
February	.08	.08	.11½	.11½
March	.08¼	.08¼	.11¾	.11½
April	.08⅛	.08⅝	.11½	.11½
May	.08⅛	.08½	.11¼	.10¾
June	.08½	.08½	.10½	.10½
July	.08⅛	.08½	.10	.09½
August	.08½	.08½	.09¾	.09½
September	.08⅛	.08⅝	.09¾	.09¾
October	.09	.08¾	.09½	.09½
November	.10	.09½	.09½	.08½
December	.10½	.10	.08½	.07¾
Year	.10½	.08	.11¾	.07¾

Stearic Acid, Single Pressed

On December 13, 1910, the price was 10c. to 10½c.; October 18, 1901, 11¼c. to 11⅝c.; 1911, 9¼c. to 9½c.; 1913, 8¾c. to 12¼c.; 1919, June, 30c.

(In bags)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.09	$0.09	$0.12½	$0.11¼
February	.09	.09	.13¾	.12½
March	.09	.09	.13¾	.13¾
April	.09	.09	.13¾	.13¾
May	.09	.09	.13¾	.13¾
June	.09	.09	.13	.13
July	.09	.09	.12¾	.12¼
August	.09	.09	.12¾	.12¼
September	.09	.09	.12¾	.12¾
October	.09¾	.09¼	.12½	.12½
November	.10½	.10	.12½	.12½
December	.11	.10½	.11¼	.11½
Year	.11	.09	.13¾	.11½

Stearic Acid, Double Pressed

On May 16, 1908, the price was 10c. to 10¼c.; October 18, 1911, 10¼c. to 10½c.; 1919, July, 31½c.

(In bags)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.09¾	$0.09½	$0.13	$0.12
February	.09½	.09½	.14	.13
March	.09¾	.09½	.14½	.14
April	.09½	.09½	.14½	.14½
May	.09½	.09½	.14½	.13¾
June	.09¼	.09½	.13½	.13½
July	.09¼	.09½	.13¼	.12¾
August	.09½	.09¾	.13¼	.12¾
September	.09½	.09½	.13¾	.13¼
October	.10	.09¾	.13	.13
November	.11	.10½	.13	.12½
December	.11½	.11	.12½	.11¾
Year	.11½	.09½	.14½	.11¾

Stearic Acid, Triple Pressed

On June 12, 1915, the price was 13c. to 13½c.; 1919, July, 34c.

(In bags)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.10½	$0.10¼	$0.14½	$0.13½
February	.10¼	.10½	.15¾	.14½
March	.10½	.10½	.16	.15¾
April	.10½	.10½	.16	.16
May	.10½	.10½	.16	.15¼
June	.10½	.10¼	.14¾	.14¾
July	.10¼	.10½	.14½	.14
August	.10½	.10½	.14½	.14
September	.11	.10½	.14½	.14½
October	.12½	.11¼	.14¼	.14½
November	.12½	.12	.14¼	.13¾
December	.13	.12½	.13¾	.13
Year	.13	.10½	.16	.13

Tallow Oil, Acidless

On October 18, 1871, the price was 77½c. to 80c.; 1881, 75c. to 85c.; 1891, 45c. to 48c.; 1901, 57c.; 1911, 63c. to 65c.; 1913, 62c. to 63c.; 1919, July, $1.90.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	*$0.75	*$0.75	$12.75	$12.50
February	*.75	*.75	12.75	12.75
March	*.75	*.75	13.25	12.75
April	10.25	10.00	13.25	12.50
May	10.00	10.00	12.50	12.00
June	10.00	10.00	12.00	10.50
July	10.00	10.00	10.50	10.25
August	10.50	10.00	10.25	10.25
September	10.50	10.25	12.25	10.75
October	11.25	10.25	11.50	10.50
November	11.75	11.25	11.50	11.50
December	12.25	11.25	11.50	11.50
Year	12.25	*.75	13.25	10.25

* Per gallon.

Cod Oil, Domestic Prime

On October 18, 1871, the price was 58c. to 62½c.; 1881, 40c. to 43c.; 1891, 34c. to 36c.; 1901, 30c. to 31c.; 1911, 52c. to 54c.; 1913, 38c. to 40c.; 1918, October, $1.50.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.44	$0.42	$0.61	$0.58
February	.46	.44	.64	.61
March	Nominal		.68	.66
April	Nominal		.68	.68
May	.55	.55	.68	.68
June	.55	.55	.68	.68
July	.55	.54	.68	.61
August	.54	.54	.60	.59
September	.54	.53	.60	.59
October	.53	.53	.66	.62
November	.54	.54	.66	.66
December	.55	.55	.66	.66
Year	.55	.42	.68	.58

Cod Oil, Newfoundland

On October 18, 1871, the price was 67½c. to 70c.; 1881, 42½c. to 47c.; 1891, 42c. to 43c.; 1901, 34c. to 35c.; 1911, 54c. to 57c.; 1913, 40c. to 42c.; 1918, October, $1.60.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.46	$0.45	$0.64	$0.60
February	.49	.46	.67	.64
March	.57	.57	.71	.69
April	.60	.60	.71	.71
May	.57	.57	.71	.71
June	.57	.57	.71	.71
July	.57	.55	.71	.63
August	.55	.55	.62	.61
September	.55	.54	.62	.60
October	.55	.54	.68	.64
November	.56	.56	.68	.68
December	.60	.58	.68	.68
Year	.60	.45	.71	.60

Herring Oil

On October 31, 1888, the price was 35c.; October 18, 1901, nominal; 1911, 50c.; 1913, nominal, 1918, October, $1.20.

(F.o.b. Pacific coast, sellers' tanks)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.32	$0.30	$0.42	$0.40
February	.33	.32	.42	.42
March	.35	.35	.42	.42
April	.35	.35	.50	.50
May	.35	.35	.50	.45
June	.32	.32	.45	.45
July	.32	.32	.45	.38
August	.32	.32	.35	.35
September	.34	.32	.40	.35
October	.34	.34	.40	.40
November	.38	.38	.40	.40
December	.40	.38	.50	.40
Year	.40	.30	.50	.35

Menhaden Oil, Southern, Crude

On December 1, 1886, the price was 18c. to 19c.; October 18, 1901, 25c.; 1911, 35c.; 1913, 35c.; 1918, September, $1.27.

(F.o.b. Baltimore, in barrels

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.38	$0.35	$0.50	$0.48
February	.40	.40	.51	.50
March	.40	.40	.52	.52
April	.40	.40	Nominal	
May	.40	.35	Nominal	
June	.35	.35	.50	.50
July	.42	.35	.50	.40
August	.42	.39	.40	.40
September	.42	.38	.50	.40
October	.40	.37	.47½	.47½
November	.55	.42½	.50	.50
December	.48	.47	.50	.47½
Year	.55	.35	.52	.40

Menhaden Oil, Light Pressed

On October 18, 1871, the price was 41c.; 1881, nominal; 1891, nominal; 1901, 34c. to 35c.; 1911, 50c. to 54c.; 1913, 42c. to 44c.; 1918, November, $1.50.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.50	$0.49	$0.67	$0.64
February	.55	.52	.71	.67
March	.61	.61	.77	.71
April	.57	.57	.78	.75
May	.55	.54	.80	.80
June	.54	.54	.80	.80
July	.54	.54	.80	.68
August	.54	.54	.65	.65
September	.54	.54	.65	.62
October	.57	.57	.65	.65
November	.68	.64	.65	.65
December	.70	.68	.65	.65
Year	.70	.49	.80	.62

Menhaden Oil, Yellow Bleached

On January 3, 1910, the price was 33c. to 34c.; October 18, 1911, 48c. to 51c.; 1913, 40c. to 42c.; 1918, September, $1.47.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.48	$0.47	$0.70	$0.67
February	.53	.50	.74	.70
March	.59	.58	.79	.74
April	.59	.59	.81	.79
May	.57	.57	.83	.83
June	.57	.57	.83	.83
July	.57	.57	.83	.71
August	.57	.57	.68	.68
September	.55	.55	.68	.65
October	.55	.55	.68	.68
November	.65	.62	.68	.68
December	.67	.65	.68	.68
Year	.67	.47	.83	.65

Fish Oils

Salmon Oil

On July 29, 1918, the price was 90c.; 1918, December, $1.35.

(F.o.b. Pacific coast, sellers' tanks)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.31	$0.31	$0.45	$0.42
February	.33	.33	.45	.45
March	.33	.33	.45	.45
April	.33	.33	.48	.48
May	.33	.33	.50	.48
June	.33	.33	.50	.50
July	.33	.33	.50	.40
August	.33	.33	.37½	.37½
September	.33	.33	.37½	.37½
October	.33	.33	.37½	.37½
November	.38	.32	.37½	.37½
December	.42	.38	.47½	.37½
Year	.42	.31	.50	.37½

Sardine Oil, Oriental

On July 29, 1918, the price was $1.08 to $1.10; 1918, January, $1.23.

(F.o.b. Pacific coast, sellers' tanks)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.30	$0.30	$0.44	$0.40
February	.33	.33	.44	.44
March	.33	.33	.44	.44
April	.35	.35	.46	.46
May	.35	.35	.46	.46
June	.35	.35	.46	.46
July	.35	.35	.46	.40
August	.35	.35	.35	.35
September	.35	.35	.35	.35
October	.35	.35	.35	.35
November	.38	.38	.35	.35
December	.40	.38	.45	.35
Year	.40	.30	.46	.35

Sperm, Bleached, 38 Degrees Cold Test

On October 18, 1871, the price was $1.40 to $1.42½; 1881, $1.10 to $1.12; 1891, 77c. to 80c.; 1901, 66c. to 68c.; 1911, 74c. to 76c.; 1913, 72c. to 73c.; 1918, April, $2.25.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.62	$1.62	$0.99	$0.99
February	1.62	1.62	.99	.99
March	1.62	1.62	.99	.99
April	1.62	1.62	.89	.89
May	1.62	1.62	.89	.89
June	1.62	1.62	.89	.89
July	1.62	1.62	.89	.89
August	1.62	1.62	.89	.89
September	1.62	1.62	.89	.89
October	1.62	1.62	.89	.89
November	.99	.99	.89	.84
December	.99	.99	.84	.79
Year	1.62	.99	.99	.79

Sperm, Natural, 38 Degrees Cold Test

On October 18, 1871, the price was $1.35 to $1.37½; 1881, $1.05 to $1.07; 1891, 72c. to 75c.; 1901, 61c. to 63c.; 1911, 71c. to 73c.; 1913, 69c.; 1918, April, $2.25.

(In barrels)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.60	$1.60	$0.96	$0.96
February	1.60	1.60	.96	.96
March	1.60	1.60	.96	.96
April	1.60	1.60	.86	.86
May	1.60	1.60	.86	.86
June	1.60	1.60	.86	.86
July	1.60	1.60	.86	.86
August	1.60	1.60	.86	.86
September	1.60	1.60	.86	.86
October	1.60	1.60	.86	.86
November	.96	.96	.86	.81
December	.96	.96	.81	.76
Year	1.60	.96	.96	.76

Whale Oil, Crude No. 1

On October 18, 1871, the price was 56c. to 57c.; 1881, nominal; 1891, nominal; 1901, nominal; 1911, nominal; 1913, nominal; 1918, August, $1.35.

(F.o.b. Pacific coast, sellers' tanks)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.38	$0.38	$0.52	$0.45
February	.38	.38	.52	.52
March	.38	.38	.55	.55
April	.38	.38	.55	.55
May	.38	.38	.55	.50
June	.38	.38	.48	.48
July	.45	.38	.48	.45
August	.45	.45	.45	.45
September	.45	.45	.45	.45
October	.45	.45	.45	.45
November	.45	.45	.45	.45
December	.45	.45	.45	.45
Year	.45	.38	.55	.45

Whale Oil, Bleached Winter

On October 18, 1871, the price was 65c. to 66c.; 1881, 54c.; 1891, 58c. to 59c.; 1901, 46c. to 48c.; 1911, 52c. to 54c.; 1913, 50c. to 51c.; 1918, January, $1.50.

(In barrels)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.70	$0.70	$0.75	$0.75
February	.70	.70	.75	.75
March	.75	.75	.75	.75
April	.75	.75	.76	.76
May	.75	.75	.78	.78
June	.75	.75	.78	.78
July	.75	.75	.78	.78
August	.75	.75	.78	.78
September	.75	.75	.78	.78
October	.75	.75	.78	.78
November	.75	.75	.78	.78
December	.75	.75	.78	.78
Year	.75	.70	.78	.75

Whale Oil, Natural Winter

On October 18, 1871, the price was 63c.; 1881, 50c. to 51c.; 1891, 56c.; 1901, 44c. to 46c.; 1911, 50c. to 52c.; 1913, 48c. to 49c.; 1918, September, $1.50.

(In barrels)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.68	$0.68	$0.70	$0.70
February	.68	.68	.72	.70
March	.70	.70	.72	.72
April	.70	.70	.73	.73
May	.70	.70	.75	.75
June	.70	.70	.75	.75
July	.70	.70	.75	.75
August	.70	.70	.75	.75
September	.70	.70	.75	.75
October	.70	.70	.75	.75
November	.70	.70	.75	.75
December	.70	.70	.75	.75
Year	.70	.68	.75	.70

Vegetable Oils

China Wood Oil

On February 4, 1905, the price was 6c. to 6¼c.; October 18, 1911, 8¾c. to 9c.; 1913, 7¼c. to 7½c.; 1918, July, 32c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.13½	$0.13	$0.16	$0.14¼
February	.14¾	.14	.18¼	.18
March	.14	.14	.26	.19
April	.14	.13½	.40	.35
May	.14	.13½	.38	.28
June	.14	.13½	.26	.25¼
July	.13	.11¾	.25	.23
August	.13	.12¼	.23	.22¼
September	.12¾	.12	.22	.22
October	.12¾	.12½	.22	.21¼
November	.12¾	.12¾	.21¼	.21
December	.13¾	.12½	.21½	.21
Year	.14¾	.11¾	.40	.14½

Coconut Oil Meal

On October 7, 1918, the price was $40 to $42; 1919, October, $66.

	Per short ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$25.00	$25.00	$41.00	$41.00
February	25.00	25.00	41.00	41.00
March	25.00	25.00	41.00	41.00
April	26.00	26.00	41.00	41.00
May	25.00	25.00	32.50	32.50
June	25.00	25.00	32.50	32.50
July	25.00	25.00	32.50	31.00
August	33.00	25.00	31.00	29.00
September	33.00	33.00	30.00	29.00
October	33.00	36.00	30.00	30.00
November	33.00	33.00	31.00	30.00
December	41.00	33.00	31.00	31.00
Year	41.00	25.00	41.00	29.00

Coconut Oil Cake

On October 7, 1918, the price was $39 to $41; 1919, August, $61.

	Per short ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$24.00	$24.00	$40.00	$40.00
February	24.00	24.00	40.00	40.00
March	24.00	24.00	40.00	40.00
April	25.00	25.00	40.00	40.00
May	24.00	24.00	31.50	31.50
June	24.00	24.00	31.50	31.50
July	24.00	24.00	31.50	30.00
August	35.00	24.00	30.00	28.00
September	32.00	32.00	29.00	28.00
October	32.00	32.00	29.00	29.00
November	32.00	32.00	30.00	29.00
December	40.00	32.00	30.00	30.00
Year	40.00	24.00	40.00	28.00

Coconut Oil, Manila

On October 23, 1918, the price was 15¾c. to 16c.; 1919, July, 20¼c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.09¼	$0.09
February	.09	.09	.09¼	.09¼
March	.09	.09	.10	.08¾
April	.09	.09	.10	.10
May	.08¾	.08½	.10	.09½
June	.08½	.08½	.09½	.09½
July	.08⅞	.08½	.09⅝	.09¼
August	.09¼	.08¼	.09¼	.09¼
September	.08¼	.08¼	.09¼	.09¼
October	.08¼	.08¼	.09½	.09¼
November	.08½	.08½	.09¾	.09½
December	.08¾	.08½	.09¾	.09¾
Year	.09	.08¼	.10	.09

Coconut Oil, Edible

On August 19, 1918, the price was 20c. to 21c.; 1919, July, 24c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10½	$0.10½	$0.10⅝	$0.10⅝
February	.10½	.10½	.10¾	.10⅝
March	.10½	.10½	.11½	.10⅝
April	.10⅝	.10¾	.11½	.11½
May	.10⅝	.10½	.11½	.11
June	.10½	.10⅜	.11	.11
July	.10½	.09⅝	.10½	.10¼
August	.09⅜	.09⅜	.10¼	.10¼
September	.09⅜	.09⅜	.10½	.10¼
October	.09⅜	.09⅜	.10½	.10½
November	.10¼	.09⅝	.10½	.10½
December	.10⅜	.10¼	.10½	.10½
Year	.10⅜	.09⅝	.11½	.10¼

Coconut Oil, Cochin, Domestic

On September 18, 1916, the price was 14c. to 15c.; 1919, June, 22c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10	$0.09¼	$0.10	$0.10
February	.09⅞	.09¾	.10	.10
March	.10	.10	.10½	.10
April	.09¾	.09¾	.10½	.10½
May	.09½	.09½	.11	.10½
June	.09½	.09½	.10½	.10½
July	.09½	.09¼	.10	.10
August	.09¼	.09¼	.10	.09¾
September	.09¼	.09¼	.10	.09¾
October	.09	.09	.10	.10
November	.09½	.09	.10¼	.10
December	.10	.09½	.10¼	.10¼
Year	.10	.09	.11	.09¾

Coconut Oil, Ceylon, Domestic

On August 14, 1916, the price was 12¾c. to 13c.; 1919, July, 20¾c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.10	$0.10
February	.09	.08½	.09¼	.09¼
March	.09¼	.09¼	.10	.09¼
April	.08¾	.08¾	.10	.10
May	.08⅞	.08⅞	.10¼	.09½
June	.08⅞	.08⅞	.09¼	.09¼
July	.08⅝	.08½	.09¼	.09¼
August	.08½	.08½	.09	.09
September	.08½	.08¼	.09½	.09
October	.08½	.08¼	.09½	.09½
November	.08¾	.08½	.09¾	.09½
December	.09½	.08¾	.09¾	.09¾
Year	.09¼	.08¼	.10¼	.09

Copra, f. o. b. New York

On April 20, 1912, the price was 9¼c. to 9¼c.; 1913, 10¾c. to 10⅞c.; 1919, January, 20¾c.

(In bags)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04½	$0.04½	$0.05¼	$0.05
February	.04½	.04⅝	.05¼	.05¼
March	.04⅞	.04⅞	.06	.05⅝
April	.04½	.04½	.06	.06
May	.04⅝	.04⅝	.06	.05
June	.04⅝	.04½	.05	.04¾
July	.04½	.04½	.04¾	.04½
August	.04½	.04½	.04¾	.04½
September	.04½	.04⅜	.05	.04½
October	.04⅜	.04⅜	.05¼	.05¼
November	.04⅜	.04⅜	.05¼	.05¼
December	.04⅜	.04⅜	.05½	.05¼
Year	.04⅞	.04⅜	.06	.04½

Copra, f. o. b. Pacific Coast

On January 5, 1918, the price was 8¾c. to 9c.; 1920, January, 11¼c.

(In bags)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04¼	$0.04¼	$0.05	$0.04¾
February	.04⅛	.04	.05¼	.05⅛
March	.04½	.04½	.05⅝	.05⅜
April	.04¼	.04¼	.05⅜	.05⅜
May	.04¼	.04¼	.05⅜	.04⅜
June	.04⅜	.04¼	.04⅜	.04½
July	.04⅜	.04¼	.04½	.04¼
August	.04⅜	.04⅜	.04½	.04¼
September	.04⅛	.04⅛	.05¼	.04⅜
October	.04⅜	.04⅜	.05	.05
November	.04⅜	.04⅜	.05	.05
December	.04⅜	.04⅜	.05¼	.05
Year	.04⅜	.04	.05⅜	.04½

Corn Oil, Crude

On March 8, 1915, the price was $7.75 to $7.85; 1920, January, $20.81.

(In barrels)

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$8.76	$8.38	$11.00	$10.67
February	8.50	8.75	11.17	11.17
March	11.24	11.24	12.50	11.17
April	11.50	11.25	12.50	12.50
May	11.25	11.25	12.50	12.12½
June	11.49	10.99	12.12½	12.12½
July	10.55	9.68½	12.12½	12.12½
August	9.67	9.67	12.12½	9.75
September	9.67	8.42	10.75	10.75
October	9.17	8.92	11.00	10.50
November	10.05	9.42	11.75	11.50
December	10.67	10.05	11.75	11.75
Year	11.50	8.38	12.50	9.75

Corn Oil, Refined

On August 5, 1895, the price was $32 to $33; October 18, 1913, $6.25 to $6.35; 1919, August, $28.56.

(In cooperage)

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$10.24	$10.24	$12.67	$12.67
February	11.24	9.78	12.67	12.67
March	12.49	12.49	13.25	12.67
April	12.99	12.99	13.25	13.25
May	12.99	12.99	13.25	13.00
June	12.99	12.49	13.00	13.00
July	12.42	12.42	13.00	10.25
August	11.42	11.42	11.50	10.25
September	11.42	10.42	12.00	11.50
October	10.92	10.42	12.00	12.00
November	11.42	10.92	13.25	12.50
December	12.17	11.42	13.25	13.25
Year	12.99	9.78	13.25	10.25

Cottonseed Oil, Prime Crude, f. o. b. Southeast

On October 18, 1871, the price was 44c. to 46c. per gallon; 1881, 45c. to 50c.; 1891, 30c. to 31c.; 1901, 30c. to 31c.; 1911, 33c.; 1913, 43c. to 43½c. per gallon; 1919, June, 22.50c. per pound.

	Cents per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	7.15	7.00	10.00	9.62½
February	8.50	8.05	10.00	9.75
March	10.25	10.25	10.62½	10.00
April	10.00	9.75	10.50	10.25
May	10.00	10.00	9.75	9.75
June	9.75	9.75	10.00	10.00
July	8.75	8.75	9.00	9.00
August	8.50	8.50	Nominal	
September	6.80	6.25	10.00	10.00
October	7.25	6.25	9.50	8.75
November	8.50	8.00	10.00	9.62½
December	9.12½	8.50	9.50	9.37½
Year	10.25	6.25	10.62½	8.75

Cottonseed Oil, Prime Summer Yellow

On October 18, 1871, the price was 53c. to 56c. per gallon; in 1881, 56c. to 57½c. per gallon; 1891, 34c. to 35c. per gallon; 1901, 38c. to 40c. per gallon; 1911, 6c to 6.12½c. per pound; 1913, 6.85c. to 6.90c.; 1919, July, 27.50c.

(In barrels)

	Cents per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	8.60	8.20	11.75	11.50
February	9.40	9.40	11.75	11.75
March	11.75	11.75	13.00	11.75
April	11.65	11.00	12.75	12.25
May	11.50	11.50	12.25	12.25
June	11.00	11.00	12.50	12.25
July	11.15	10.60	11.50	11.00
August	10.60	10.60	11.00	11.00
September	9.00	8.20	12.75	11.00
October	8.50	8.35	13.50	12.50
November	10.50	9.50	12.50	10.00
December	11.25	10.50	12.00	12.00
Year	11.75	8.20	13.50	10.00

Linseed Oil

On October 18, 1871, the price was 81c. to 82c.; 1881, 59c. to 60c.; 1891, 40c.; 1901, 65c. to 66c.; 1911, 88c. to 89c.; 1913, 46c.; 1919, July, $2.22.

(Carload lots

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.69	$0.64	$0.83	$0.83
February	.86	.71	.96	.90
March	.84	.84	1.05	.98
April	.79	.79	1.17	1.14
May	.90	.90	1.17	1.14
June	.87	.82	1.14	1.10
July	.89	.80	1.08	1.00
August	.87	.86	1.00	.91
September	.88	.86	.83	.83
October	.90	.87	.95	.91
November	.87	.85	.92	.90
December	.90	.86	.92	.91
Year	.90	.64	1.17	.83

Olive Oil, Denatured

On October 18, 1871, the price was $1.22 to $1.25; 1881, $1 to $1.10; 1891, 62c. to 65c.; 1901, 58c. to 62c.; 1911, 85c. to 89c.; 1913, 83c. to 85c.; 1919, January, $3.50.

(In barrels)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.10	$1.10	$1.15	$1.15
February	1.10	1.10	1.15	1.15
March	1.12	1.12	1.15	1.15
April	1.15	1.12	1.15	1.15
May	1.15	1.15	1.15	1.15
June	1.15	1.15	1.15	1.15
July	1.15	1.15	1.15	1.15
August	1.15	1.15	1.15	1.12
September	1.15	1.15	1.12	1.12
October	1.15	1.15	1.12	1.10
November	1.15	1.15	1.10	1.10
December	1.15	1.15	1.10	1.10
Year	1.15	1.10	1.15	1.10

Olive Oil, Prime Foots

On May 13, 1879, the price was 8½c.; October 18, 1881, 7½c.; 1891, 5¼c. to 5½c.; 1901, 5c. to 5¼c.; 1911, 7¼c. to 7½c.; 1913, 7¾c. to 8c.; 1918, May, 45c.

(In casks)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08½	$0.08	$0.09½	$0.09
February	.08½	.08	.09¼	.09¼
March	.09	.08¾	.09¼	.09
April	.09	.09	.09¾	.09½
May	.09	.09	.09¾	.09¼
June	.08½	.08½	.09¼	.08
July	.08½	.08¼	.08½	.07¾
August	.08¾	.08¼	.08½	.08½
September	.09	.08¾	.08½	.08½
October	.09½	.08½	.08½	.08½
November	.09½	.09¼	.08½	.08½
December	.09¼	.09	.09¼	.08½
Year	.09½	.08	.09¾	.07¾

Olive Oil, Edible

On January 19, 1918, the price was $3 to $3.25; 1918, November, $7.50.

(In barrels)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.85	$1.80	$1.65	$1.65
Fabruary	1.80	1.80	1.65	1.65
March	1.80	1.80	1.65	1.65
April	1.80	1.80	1.65	1.65
May	2.00	2.00	1.65	1.65
June	2.00	1.85	1.65	1.65
July	1.85	1.85	1.65	1.65
August	1.75	1.75	1.65	1.65
September	1.75	1.75	1.65	1.65
October	1.75	1.75	1.70	1.65
November	1.75	1.75	1.70	1.70
December	1.65	1.65	1.70	1.70
Year	2.00	1.65	1.70	1.65

Palm Oil, Lagos

On October 18, 1871, the price was 8c. to 8¾c.; 1881, 7¼c. to 7½c.; 1891, 6c. to 6½c.; 1901, 5½c. to 5¾c.; 1911, nominal; 1913, 7⅝c. to 7¾c.; 1918, May, 40c.

(In casks)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07⅞	$0.07⅞	$0.08	$0.07⅞
February	.08	.07⅞	.08	.08
March	.08¼	.08¼	.08⅝	.08
April	.08	.07⅞	.08¾	.08½
May	.07¼	.07¼	.08⅝	.07½
June	.07	.07	.07¼	.07
July	.07⅛	.07	.07	.06¾
August	.07	.07	.07	.06¾
September	.07	.06¾	.07½	.07⅛
October	.06⅞	.06⅞	.07⅝	.07⅛
November	.07¼	.07¼	7.80	7.65
December	.07⅜	.07¼	7.75	.07⅝
Year	.08¼	.06⅝	8.75	6.75

Palm Kernel Oil

On February 26, 1910, the price was 8½c. to 8½c.; October 18, 1911, 9¼c.; 1913, 10½c. to 10¾c.; October, 1919, 22c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08¾	$0.08½	$0.08¾	$0.08½
February	.08¾	.08½	.08¾	.08¾
March	.08¾	.08¾	.09	.08¾
April	.08¾	.08¾	.09⅝	.09¼
May	.08¾	.08¾	.09⅝	.08¾
June	.09	.08¾	.08½	.08¼
July	.09	.08¾	.08¼	.08¼
August	.08¾	.08¾	.08¼	.08¼
September	.08¾	.08½	.08¾	.08¼
October	.08½	.08	.08¾	.08¾
November	.08	.07⅝	.08¾	.08¾
December	.08½	.08	.09¼	.08¾
Year	.09	.07⅝	.09⅝	.08¼

Peanut Oil, Crude, f. o. b. Mills

On November 13, 1909, the price was 8c.; October 18, 1911, 7c. to 7¼c.; 1913, 6½c. to 7½c.; 1919, November, $1.80.

(In buyers' tanks)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09½	$0.09¼	$0.15	$0.12½
February	.09¾	.09¼	.15	.15
March	.11	.09¾	.15½	.15
April	.11¾	.11	.15½	.15½
May	.12	.12	.15	.13½
June	.12	.12	.15	.15
July	.12	.12	.15	.15
August	.12	.11¾	.15	.15
September	.11¾	.11¾	.15	.15
October	.11	.11	.15	.15
November	.11¾	.11	.15	.13
December	.12	.11¾	.12	.12
Year	.12	.09¼	.15½	.12

Peanut Oil, Domestic, Refined

On August 5, 1916, the price was 12½c. to 14c.; 1919, January, 21c.

(In barrels)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11¼	$0.10¾	$0.17½	$0.16½
February	.11¾	.10¾	.17½	.16½
March	.12¼	.11¾	.18	.17½
April	.13½	.12½	.17½	.17½
May	.13	.13	.16½	.16
June	.13	.13	.16	.16
July	.13	.12	.16	.16
August	.12½	.12½	.16	.16
September	.12½	.12	.16	.16
October	.12	.12	.16	.16
November	.13	.12	.16	.15
December	.15	.14	.15	.14½
Year	.15	.10¾	.18	.14½

Peanut Oil, Oriental f. o. b. Pacific Coast

On May 20, 1918, the price was 18½c.; 1919, August, 26½c.

(In sellers' tanks)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.10	$0.08½
February	.09	.08	.10½	.10½
March	.10¼	.10	.09½	.09½
April	Nominal		.08½	.09¼
May	Nominal		.09½	.09
June	Nominal		.09½	.09
July	Nominal		.09½	.09¼
August	Nominal		.09¾	.09¼
September	Nominal		.09¼	.09¼
October	Nominal		.09¼	.09¼
November	Nominal		.09¼	.09¼
December	.08¾	.08¼	.09¾	.09¼
Year	.16¼	.08	.10½	.08½

Peanut Oil Meal, 20 Percent

On November 18, 1918, the price was $45; 1919, December, $80.

	Per short ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$22.50	$20.00	$32.50	$32.50
February	20.00	20.00	32.50	32.50
March	20.00	20.00	40.00	32.50
April	20.00	20.00	40.00	40.00
May	20.00	20.00	40.00	40.00
June	20.00	20.00	40.00	40.00
July	25.00	20.00	Nominal	
August	27.00	25.00	Nominal	
September	27.00	27.00	Nominal	
October	28.00	27.00	Nominal	
November	28.00	28.00	Nominal	
December	28.00	28.00	Nominal	
Year	28.00	20.00	40.00	32.50

Perilla Oil, f. o. b. Pacific Coast

On August 5, 1918, the price was 19c.; 1919, August, 26c.

(In sellers' tanks)

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.10½	$0.14½	$0.13½
February	.12	.10½	.15¼	.15¼
March	.12	.10½	.16	.15½
April	Nominal		.16¼	.16¼
May	.13	.13	.16½	.16
June	.13½	.13½	.16	.15
July	.13½	.13½	.14¾	.14¾
August	.13½	.13½	.14¾	.14¼
September	.13½	.13½	.14½	.14¼
October	Nominal		.14	.14
November	.13	.12	.14	.13½
December	.13½	.13	.14¼	.14
Year	.13½	.10½	.16½	.13⅝

Poppy Seed Oil

On September 2, 1918, the price was $5; 1918, January, $5.

(In barrels)

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.50	$2.50	$2.75	$2.75
February	2.50	2.50	2.75	2.75
March	2.50	2.50	2.75	2.25
April	2.50	2.50	2.25	2.25
May	2.50	2.50	2.25	2.25
June	2.50	2.50	2.25	2.25
July	2.50	2.50	2.25	2.25
August	2.50	2.50	2.25	2.25
September	2.50	2.50	2.15	2.15
October	2.50	2.50	2.15	2.15
November	2.50	2.50	2.10	2.10
December	2.50	2.50	2.10	2.10
Year	2.50	2.50	2.75	2.10

Rapeseed Oil, Blown

On May 12, 1902, the price was 67c. to 68c.; October 18, 1901, 66½c. to 67c.; 1911, 72c. to 75c.; 1913, 67c. to 68c.; 1918, September, $2.

(In barrels)

	Per gallon— 1922. H.	L.	1923. H.	L.
January	$0.95	$0.93	$0.95	$0.92
February	.93	.90	.95	.95
March	.92	.92	1.00	.95
April	.92	.92	1.00	1.00
May	.86	.86	1.00	1.00
June	.92	.92	1.00	1.00
July	.95	.92	1.00	1.00
August	.95	.95	1.00	1.00
September	.90	.90	1.00	1.00
October	.90	.90	.95	.95
November	.92	.92	.90	.90
December	.92	.92	.90	.90
Year	.95	.86	1.00	.90

Rapeseed Oil, Refined

On October 18, 1871, the price was $1.15 to $1.30; 1881, 85c. to $1; 1891, 67½c. to 70c.; 1901, 68c. to 72c.; 1911, 69c. to 72c.; 1913, 63c. to 64c.; 1918 October, $1.92.

(In barrels)

	Per gallon— 1922. H.	L.	1923. H.	L.
January	$0.84	$0.82	$0.85	$0.83
February	.86	.82	.85	.85
March	.86	.84	.85	.85
April	.84	.83	.85	.85
May	.83	.83	.85	.84
June	.84	.84	.83	.82
July	.84	.84	.80	.78
August	.83	.83	.76	.76
September	.83	.79	.76	.76
October	.79	.78	.76	.76
November	.78	.78	.75	.74
December	.83	.78	.75	.74
Year	.86	.78	.85	.74

Sesame Oil, Edible

On December 7, 1873, the price was $1.15 to $1.20; October 18, 1881, $1 to $1.10; 1891, 72c. to 75c.; 1901, 67c. to 70c.; 1911, 75c. to 85c.; 1918, November, $4.

(In barrels)

	Per gallon* 1922. H.	L.	1923. H.	L.
January	$1.15	$1.15	$1.25	$1.25
February	1.15	1.15	1.25	1.25
March	1.15	1.15	1.25	1.10
April	1.15	1.10	.12½	.12½
May	1.10	1.10	.12½	.12½
June	1.10	1.10	.12½	.12
July	1.10	1.10	.12	.12
August	1.10	1.10	.12	.11½
September	Nominal		.11½	.11½
October	Nominal		.11¾	.11½
November	1.25	1.25	.13	.12¾
December	1.25	1.25	.13½	.13
Year	1.25	1.10	1.25	.11¾

* Per pound after March, 1923.

Soya Bean Oil, Crude

On December 18, 1909, the price was 6¼c. to 6⅝c.; October 18, 1911, 7½c. to 7⅝c.; 1913, 6¾c. to 6½c.; 1918, July, 20½c.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.08⅝	$0.08⅝	$0.11¾	$0.10⅝
February	.09¼	.08⅝	.11⅝	.11⅝
March	.11	.10¼	.12½	.11⅜
April	.11¼	.11¼	.13	.12½
May	Nominal		.13	.12½
June	Nominal		.12½	.12½
July	Nominal		.12½	.11½
August	Nominal		.11½	.11½
September	Nominal		.11⅝	.10½
October	Nominal		.10⅜	.10½
November	.10½	.10	.11¼	.10½
December	.11	.10	.11¼	.11¼
Year	.11¼	.08⅜	.13	.10⅜

Tallow, Vegetable, c. i. f. Pacific Coast

On December 9, 1918, the price was 16c.; 1919, June, 22c.

(In mats)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.08	$0.07½	$0.07⅝	$0.07½
February	.07⅝	.07½	.08¼	.07⅝
March	.07¼	.07¼	.08⅜	.08¼
April	.07¼	.07¼	.08⅜	.08¼
May	.07¼	.07¼	.08¼	.07⅝
June	.07¼	.07¼	.07⅝	.07⅝
July	Nominal		.07⅝	.07⅝
August	Nominal		.07⅝	.07⅝
September	Nominal		.07⅝	.07⅝
October	Nominal		.09	.08¼
November	.07½	.07	.08¼	.08¼
December	.07⅝	.07½	.08½	.08
Year	.08	.07	.09	.07½

Tea Oil, f. o. b. Pacific Coast

On August 5, 1918, the price was 24c. to 25c.; 1918, September, $3.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.12	$0.12	$0.11	$0.10½
February	.12	.12	.10½	.10¼
March	.12	.12	.12	.12
April	.12	.12	.13¼	.10½
May	.12	.12	.12½	.12½
June	.12	.12	.13½	.13½
July	.12	.12	.13½	.13½
August	.12	.12	.13½	.11
September	.12	.12	.11	.11
October	.12	.12	.11	.11
November	.11	.11	.11	.10
December	.11	.11	.10	.10
Year	.12	.11	.13½	.10

Fatty Acids, Coconut Oil

On October 7, 1918, the price was 15c.; 1919, July, 17¾c.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.07½	$0.06⅝	$0.08¾	$0.08¾
February	.08	.07¼	.08¾	.08¾
March	.08	.08	.10	.08¾
April	.08	.08	.10	.10
May	.08¼	.08¼	.10	.09
June	.08⅜	.08½	.09	.09
July	.08½	.08½	.09	.08⅝
August	.08½	.08½	.08¾	.08¾
September	.08½	.08½	.09	.08¾
October	.08½	.08½	.09½	.09
November	.08½	.08¾	.09½	.09½
December	.08¾	.08⅜	.10	.09¼
Year	.08¾	.06⅜	.10	.08¼

Fatty Acids, Soya Bean Oil

On October 7, 1918, the price was 15c. to 15½c.; 1919, August, 18¼c.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.08¼	$0.08¼	$0.13¼	$0.10⅜
February	.08⅜	.08	.13¼	.13¼
March	.08½	.08½	.14½	.13¼
April	.08½	.08½	.14½	.14½
May	.09	.09	.14½	.13⅝
June	.09	.09	.13½	.13
July	.09	.09	.13	.12
August	.09	.09	.11	.11
September	.09	.09	.11	.11
October	.10	.09	.11	.11
November	.10¾	.10¼	.11	.11
December	.10¾	.10¾	.12¼	.11
Year	.10¾	.08	.14½	.10⅜

Greases, Lard, Stearins and Tallow

Grease, Brown

On March 4, 1907, the price was 5½c. to 5¾c.; October 18, 1911, 5¼c. to 5¾c.; 1913, 4¼c. to 5¼c.; 1918, June, 16¾c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.04¾	$0.04¾	$0.07½	$0.07¼
February	.05	.05	.07⅜	.07⅜
March	.06	.05	.08¼	.08
April	.05	.05	.08¼	.08
May	.05	.05	Nominal	
June	.05	.05	Nominal	
July	.06	.05	Nominal	
August	.05½	.05	Nominal	
September	.05½	.05	Nominal	
October	.06	.05¼	Nominal	
November	.06¾	.06½	Nominal	
December	.06¾	.06½	Nominal	
Year	.06¾	.04¾	.08¼	.07¼

Grease, House

On November 16, 1901, the price was 5¼c. to 5½c.; October 18, 1911, 5¾c. to 6¼c.; 1913, 5¼c. to 5¾c.; 1919, July, 16½c.

(In drums)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.04¾	$0.04¾	$0.08	$0.07½
February	.04¾	.04¾	.08	.08
March	.06¼	.05¼	.08¾	.08¼
April	.05¼	.05¼	.08⅜	.08¼
May	.05¼	.05¼	.07½	.06⅞
June	.05¼	.05¼	.06¾	.06⅝
July	.05¼	.05¼	.06	.05½
August	.05¾	.05½	.05¾	.05⅝
September	.05¼	.05¾	.06	.05⅝
October	.06¼	.05¾	.06½	.06¼
November	.06½	.06½	.06½	.06¾
December	.06¾	.06¾	.06¼	.06
Year	.06¾	.04¾	.08¾	.05½

Lard, City

On February 18, 1874, the price was 9¾c. per pound; October 18, 1881, 12c.; 1891, 6.30c. to 6.50c.; 1901, 9.20c. to 9.30c.; 1911, 8¾c.; 1913, 10½c.; 1919, June, 35½c.

(In drums)

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$9.50	$9.50	$11.75	$11.50
February	11.75	9.50	11.75	11.35
March	12.50	11.40	12.90	12.00
April	10.75	10.75	12.25	11.50
May	11.75	11.25	11.40	11.30
June	12.00	11.75	11.50	11.25
July	12.00	11.25	11.00	10.75
August	11.50	11.25	11.25	10.75
September	11.00	10.75	12.75	12.25
October	12.00	11.75	13.50	12.75
November	11.75	11.50	14.25	13.75
December	12.50	11.40	13.25	12.75
Year	12.50	9.50	14.25	10.75

Lard Compound

On February 8, 1897, the price was 4c. to 4⅝c. per pound; October 18, 1901, 8c. to 8½c.; 1911, 7½c. to 7¾c.; 1913, 8¾c. to 8⅝c.; 1919, July, 30c.

(In drums)

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$10.50	$10.00	$12.75	$12.00
February	12.50	10.75	12.75	12.75
March	13.75	13.25	13.50	13.00
April	13.00	13.00	13.50	13.50
May	13.00	13.00	13.50	13.00
June	13.00	13.00	12.75	12.75
July	13.00	12.00	13.00	11.50
August	12.00	11.50	12.00	11.75
September	11.25	11.00	13.25	12.50
October	11.00	11.00	13.50	13.25
November	11.25	11.00	13.75	13.50
December	12.00	11.50	13.50	13.25
Year	13.75	10.00	13.75	11.50

Lard, Middle Western

On April 29, 1907, the price was 9.10c. per pound; October 18, 1911, 9.40c.; 1913, 10¾c. to 10⅞c.; 1919, June, 36¼c.

(In carload lots)

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$10.25	$10.00	$12.15	$11.75
February	12.50	10.25	11.80	11.60
March	12.65	11.60	12.90	12.10
April	11.00	11.00	12.15	11.75
May	11.75	11.75	11.70	11.60
June	12.25	12.10	11.85	11.55
July	12.25	11.60	11.50	11.10
August	11.85	11.50	11.55	10.95
September	11.40	10.90	12.80	12.45
October	12.00	11.90	13.60	12.70
November	11.90	11.60	14.80	13.60
December	12.40	11.40	13.55	13.10
Year	12.65	10.00	14.80	10.95

Lard, Neutral

On February 8, 1897, the price was 5c. to 5¾c. per pound; October 18, 1901, 12¼c. to 12½c.; 1911, 10⅝c.; 1913, 11¾c. to 12c.; 1919, June, 37½c.

(In drums)

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$10.75	$10.75	$14.00	$13.50
February	13.50	11.00	13.50	13.25
March	13.75	12.50	13.75	13.50
April	12.25	12.25	13.75	13.75
May	12.75	12.75	Nominal	
June	13.50	13.25	Nominal	
July	13.50	13.50	Nominal	
August	13.50	13.50	Nominal	
September	13.25	13.00	Nominal	
October	14.00	13.00	Nominal	
November	14.50	14.00	16.50	16.00
December	15.75	14.00	15.75	15.00
Year	15.75	10.75	16.50	13.25

Stearin, Lard

On November 23, 1896, the price was 5c. to 5¼c.; October 18, 1901, 10½c. to 10¾c.; 1911, 10½c. to 11c.; 1913, 12c. to 12¼c.; 1919, July, 41c.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.12¾	$0.12¾	$0.12¾	$0.12¾
February	.13	.12½	.13¼	.12¾
March	Nominal		.14	.13½
April	Nominal		.14½	.14
May	.14	.14	.14	.13
June	.14¼	.14¼	.13	.13
July	.14¾	.14¼	.14	.13¼
August	.14¾	.14¾	.14½	.14½
September	.14½	.14¾	.15⅜	.14¾
October	.13½	.13½	.16¼	.15½
November	.12¾	.12¾	.15½	.15⅜
December	.12¾	.12¾	.15½	.15½
Year	.14¾	.12½	.16¼	.12¾

Stearin, Oleo

On January 4, 1891, the price was 6¼c. to 6½c.; October 18, 1901, 11½c. to 11¾c.; 1911, 10¼c.; 1913, 8½c. to 8¾c.; 1919, July, 41c.

(In barrels)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.08	$0.08	$0.10¼	$0.10¼
February	.10	.08	.10¾	.10¼
March	.10½	.10	.11	.10¼
April	.10	.08¾	.11	.10⅜
May	.09¼	.08¾	.09½	.08½
June	.09⅜	.09½	.09	.08½
July	.10⅜	.09⅝	.09½	.08¼
August	.09⅜	.09⅜	.10½	.09⅜
September	.09⅜	.09	.13	.11¼
October	.10⅜	.09	.13	.12¼
November	.12	.10⅜	.11½	.10⅜
December	.10	.10	.11	.10⅜
Year	.12	.08	.13	.08½

Tallow, City Prime, Loose

On November 11, 1879, the price was 7¼c. to 7⅜c.; October 18, 1881, 8¼c.; 1891, 4⅞c.; 1901, 5¾c. to 6c.; 1911, 6¾c.; 1913, 6⅝c.; 1919, October, 16½c.

(In drums)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.05	$0.05	$0.08¼	$0.08
February	.05½	.05	.08¼	.08
March	.06	.05¾	.09¼	.08⅜
April	.05½	.05½	.08½	.08¼
May	.05½	.05½	.08	.06⅞
June	.05½	.05⅜	.07¼	.06¼
July	.05½	.05⅜	.06¾	.05⅝
August	.05⅝	.05⅝	.06	.05⅝
September	.05½	.05⅝	.07¼	.06¼
October	.06	.05½	.06⅞	.06¼
November	.06⅝	.06	.07	.07
December	.07⅜	.06⅞	.07⅜	.07
Year	.07¾	.05	.09¼	.05⅝

Tallow, Special, Loose

On August 26, 1911, the price was 7c. to 7¼c.; October 18, 1911, 7¼c. to 7⅜c.; 1913, 6⅞c.; 1919, July, 21c.

(In drums)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.06	$0.06	$0.08½	$0.08¼
February	.06⅝	.06	.08⅝	.08½
March	.07	.06½	.08⅞	.08½
April	.06½	.06¼	.08¾	.08½
May	.06⅜	.06⅜	.08	.07
June	.06½	.06½	.07⅜	.06⅞
July	.06½	.06⅜	.06⅝	.06½
August	.06⅜	.06⅜	.06⅞	.06⅝
September	.06⅜	.06½	.07⅜	.07¼
October	.06¾	.06⅜	.07½	.07¼
November	.07⅜	.07⅜	.07⅜	.07⅜
December	.08	.07¼	.07⅜	.07½
Year	.08	.06	.08⅜	.06½

Tallow, Edible

On December 22, 1906, the price was 7¼c.; October 18, 1911, 7⅞c. to 8c.; 1913, 8c. to 8½c.; 1919, July, 27c.

(In drums)

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.08	$0.08	$0.09¼	$0.09¼
February	.08½	.08	.09¼	.09¼
March	.08½	.08¼	.10¼	.09¼
April	.08½	.08½	.10⅛	.09¾
May	.08½	.08½	.09¾	.08¾
June	.08	.08	.08½	.08⅜
July	.08	.08	.07⅜	.07½
August	.07¾	.07⅜	.08¼	.07½
September	.07¾	.07¾	.09½	.08⅛
October	.08½	.07¾	.09¼	.09
November	.09¼	.08¾	.09½	.09¼
December	.09½	.09	.09½	.09
Year	.09½	.07¾	.10¼	.07¼

Roumanian Oil Output Was Increased Last Year

BUCHAREST, March 1, 1924.

The crude peroleum output of Roumanian fields in 1923, according to the latest available statistics, was 1,508,629 metric tons, compared with 1,367,478 tons in 1922. Production in the various months of last year compared as follows with 1922:—

	Metric tons— 1923.	1922.
January	128,117	102,395
February	116,606	100,883
March	138,916	118,203
April	128,884	110,724
May	124,721	121,233
June	124,461	113,688
July	125,985	115,826
August	127,287	114,927
September	120,224	110,285
October	120,464	114,954
November	122,374	112,775
December	130,500	131,585
Totals	1,508,629	1,367,478

Production reported for the year by the various companies operating in Roumanian fields compared with their respective 1922 records as follows:—

	Metric tons— 1923.	1922.
Astra Romana	414,122	407,863
Steaua Romana	222,676	227,269
Romano-Americana	168,630	223,324
Concordia	61,751	106,822
Internationala	104,767	41,680
Colombia	87,866	74,451
Credit Minier	158,059	66,163
Phoenix Oil & Transport Co.	46,061	42,511
Orion	44,221	40,284
Roum. Consolid. Oilfields Ltd.	11,123	16,377
Chiciura Oilfields of Roum.	3,411	4,301
I. R. D. P.	57,458	10,374
Aquila Franco-Romana	26,840	12,895
Romania Petroliflora	9,810	10,141
Petrol Block	5,560	4,740
Dacia Romano Petrol. Synd., Ltd.	9,868	5,445
Soc de Petrole de Bustenari	4,813	4,716
Romano Belgiana	2,584	8,125
Cometa	4,012	2,515
Victoria	2,920	2,991
M. Munteanu	5,984	4,743
Magda	3,606	1,435
Prahova	2,845	2,060
Petrolul	1,053	1,252
Generale Petrolifera	1,668	3,809
Geonafta	1,925	1,470
Naphta Romana	1,741	892
Kern Romana, Ltd.	3,127	1,526
Totals reported	1,470,991	1,340,250

World Petroleum Production in 1923

The following tabulation compares the world's production of petroleum in 1923 (as estimated by the American Petroleum Institute), with the calculations of the Bureau of Mines for 1922 and 1921 production:—

	Barrels— 1923.	1922.	1921.
United States	735,000,000	557,531,000	472,183,000
Mexico	149,472,000	182,278,000	193,397,000
Russia	38,167,000	32,966,000	29,150,000
Persia	25,000,000	21,909,000	16,672,540
Dutch East Indies	15,000,000	16,720,000	16,958,105
Roumania	10,850,000	9,843,000	8,368,000
India	7,575,000	7,700,000	8,000,000
Peru	6,375,000	5,314,000	3,699,280
Poland (Galicia)	5,000,000	5,227,000	5,167,000
Sarawak (British Borneo)	3,887,000	2,849,000	1,411,000
Venezuela	3,800,000	2,201,000	1,433,000
Argentina	3,250,000	3,018,000	1,747,410
Trinidad	3,087,000	2,445,000	2,354,000
Japan and Formosa	1,695,000	2,042,000	2,447,000
Egypt	1,037,000	1,188,000	1,255,000
France (Alsace)	503,000	496,000	392,000
Colombia	426,000	323,000	34,000
Germany	354,000	319,000	200,000
Canada	175,000	179,000	190,338
Czechslovakia	100,000	120,000	.....
Italy	32,000	31,000	34,400
Algeria	9,000	9,000	.....
England	1,000	1,000	.....
Others	200,000	100,000	5,340
Totals	1,010,995,000	854,809,000	765,065,000
	Percentage of total		
United States	72.7	65.2	61.7
Mexico	14.8	21.3	25.3

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Petroleum and Its Products: Market Review

When the often-foretold day shall come, and the exhaustion of the petroleum resources underlying that portion of the earth embraced within the boundaries of the United States shall be a reality, the year 1923 will have a big chapter in the history of the American petroleum industry. In that year the industry out-recorded itself in breaking records. Production totaled about 735,000,000 barrels. Consumption amounted to but some 25,000,000 barrels less. And the volume of production in California, in some parts of Texas and in the Rocky Mountain section increased so rapidly that the whole balance of distribution was upset.

This disturbance was helped out by the diminution of the output of Mexican fields, with a consequent decrease in imports from that country. To meet the needs of the refining activities along the Atlantic and Gulf coasts, previously supplied largely by means of imported crude oil, a heavy coastwise movement of California oil set in early in the year, to continue in increasing volume to the close.

Before the magnitude of the increase in production was realized there prevailed in the inner circles of the industry the usual talk of a threatening shortage of crude. This was followed, quite naturally, by increased drilling and exploration activities, further stimulated by another natural result on the market side of the industry, the rapid increasing of prices. Prices and production climbed hand in hand for about three months, then the market lost its hold. There followed a rapid decline in prices, continued until November, and the industry witnessed an interesting, though not exactly improving, spectacle of its various divisions chasing each other "round and round the cobbler's bench."

Increasing production broke the price structure of crude petroleum. Plentiful and cheap crude spurred refiners to voluminous buying. The accumulation of stocks at refineries led to redoubled efforts to convert the crude oil into gasoline. Too much gasoline (the result of this production excess) caused the market for that product to tumble to previously unknown price depths. Had not a recession from the exalted peak of crude production set in a few weeks before the close of the year it is difficult to conceive what disaster would have befallen the petroleum industry.

Crude Petroleum

As a result of the annual canvass for 1923 of producers, the Bureau of Mines estimates that the year's production of crude petroleum in domestic fields (arrived at by adding to the quantity transported from producing properties the quantity consumed for fuel on the leases and the net increase during the year of stocks held on producing properties) was approximately 735,000,000 barrels. This is an increase of 30 percent over the production of 1922; is more than double the production of the United States in 1918, and is almost 40,000,000 barrels more than the entire world production in 1920. In addition to this tremendous domestic output, imports of crude petroleum, although considerably less than in 1922, amounted to 82,000,000 barrels, and in spite of exports of 17,000,000 barrels of crude oil and of unprecedented consumption (indicated deliveries to consumers were 710,000,000 barrels), stocks of crude oil increased more than 79,000,000 barrels. At the end of the year pipeline and tankfarm stocks amounted to more than 333,000,000 barrels, a quantity sufficient at the December rate of consumption for 163 days. Besides these stocks, some 10,000,000 barrels of crude oil were held on producing properties, and on the last day of November 33,000,000 barrels of crude oil were held at refineries.

The increased output was due to flush yield from a number of highly productive new fields in California, Arkansas, Texas and Oklahoma, marking the culmination of the discovery during the last six years of more than a score of extraordinarily large pools, among which are the Elk Hills, Santa Fe Springs, Long Beach and Huntington Beach, in California; West Columbia, Hull, Ranger, Burkburnett, Mexia and Powell, in Texas; Hewitt, Beggs, Bristow, Burbank and Tonkawa, in Oklahoma; Homer and Haynesville, in Louisiana; Towanda, in Kansas, and El Dorado and Smackover, in Arkansas.

During 1923 daily average production steadily increased from 1,675,516 barrels in January to a maximum of 2,160,967 barrels in November. The new California pools attained their maximum in September, but the Powell field, in Texas, which is estimated to have produced a maximum of 315,000 barrels a day, maintained production on so high a level that the peak for the entire country was not reached until November. The output of these fields, however, declined sharply in December, when the daily average decreased to 1,889,742 barrels, or less than that of April, a drop in daily average yield of 161,225 barrels.

Imports of crude oil in 1923 were 45,000,000 barrels less than in 1922. This marks the first large decrease since imports began, in 1909, and emphasizes the changed conditions in Mexico due to the falling off in the production of the Southern field, where so-called "light" oil, having an average gravity of 20 degrees Baume, is produced. In 1923 imports of light oil from Mexico constituted approximately 11 percent of the total, as contrasted with 68 percent in 1922.

Decreased production and imports of Mexican petroleum, coinciding with the increased production in California, resulted in the shipment through the Panama Canal to Atlantic and Gulf ports in the United States of almost 53,000,000 barrels of California crude oil, having an average gravity of approximately 30 degrees Baume, and some 4,000,000 barrels of California oil was shipped to Mexico. These shipments of California crude oil, amounting to more than one-fifth of the State's production, afforded an outlet for California's oversupply, which greatly relieved the strained storage facilities. Stocks in California at the end of 1923 were about 92,000,000 barrels, as compared with 61,380,000 barrels at the beginning of the year.

The sum of California's shipments to Atlantic and Gulf ports plus imports in 1923 was only 8,000,000 barrels more than the imports alone in 1922. If production continues to decline in the United States and Mexico, imports from other countries will probably increase. This movement was evident in 1923, when over a million barrels more of crude oil was imported from other countries than Mexico, chiefly from Peru, than was imported in 1922.

Consumption continued to expand and, as measured by indicated deliveries to consumers (a calculated item which includes losses), increased from 592,000,000 barrels in 1922 to almost 711,000,000 barrels in 1923, an increase of 20 percent. For the first few months of the year indicated deliveries were greater than production, but later they did not keep pace with the increasing output and between April and November were less than production. The sharp reduction in production during December, however, reversed conditions, and deliveries to consumers were not only greater than production but were almost equal to the sum of production plus imports.

The 1923 output of every field, with the exception of the Gulf Coast, was greater than it was called upon to deliver to consumers. The following table gives details of relative production:—

Appalachian	1.2% more than delivered
Lima-Indiana	13.7% more than delivered
Illinois-S.W. Indiana	11.1% more than delivered
Midcontinent	16.8% more than delivered
Gulf Coast	2.5% more than delivered
Rocky Mountain	55.9% more than delivered
California	5.1% more than delivered
All fields	12.4% more than delivered

Deliveries in the foregoing table comprise oil taken by domestic consumers and that exported. Actual domestic consumption of imported and domestic oils totaled 710,739,000 barrels for the year. Therefore, domestic production exceeded domestic consumption by 3.5 percent. In 1922 domestic production exceeded home and export deliveries from domestic fields by 16.7 percent, but fell short of the total domestic consumption of all oils by 5.9 percent.

Prices of crude oil were advanced quite regularly throughout the first three months of the year, while production was mounting steadily, albeit not so rapidly. Then came the reaction. Production kept on going up, but prices took a tumble, and they continued to go down hill right up to the last fortnight of the year. This situation resulted in another record, a sort of tripartite one, comprising the highest price in two years, the lowest in a much longer period, and the biggest drop in many years. Prices began to turn up just before the close of the year as the result of the drop in production.

The representative price used in the Reporter's monthly analysis of market trends ranged as follows over the year:

January	$1.95
February	2.48
March	2.63
April	2.57
May	2.18
June	1.97
July	1.85
August	1.83
September	1.71
October	1.51
November	1.33
December	1.35

The following records at the half-year and at the close of 1923 show the volume of production and consumption, the statistical strength, and the representative price in comparison with the preceding year:—

Records at June 30
(100=June 30, 1922)

Field.	Six months' production.	Six months' consumption.	Statistical strength.	Representative price.
Appalachian	96.5	106.9	110.8	89.3
Lima-Indiana	105.7	97.6	92.3	83.2
Illinois-S.W. Indiana	94.0	125.9	134.0	82.4
Midcontinent	105.8	126.0	119.1	75.0
Gulf Coast	93.1	143.6	154.2	140.0
Rocky Mountain	158.3	133.1	84.1	89.3
California	192.4	210.7	109.5	51.3
All fields	126.4	147.7	116.9	84.6

Records at December 31
(100=December 31, 1922)

Field.	Year's production.	Year's consumption.	Statistical strength.	Representative price.
Appalachian	95.6	101.4	106.1	104.2
Lima-Indiana	106.3	82.0	77.1	76.1
Illinois-S.W. Indiana	92.9	111.8	120.3	75.0
Midcontinent	110.6	114.2	103.3	84.9
Gulf Coast	85.0	106.6	125.4	90.0
Rocky Mountain	159.5	105.1	65.9	39.1
California	190.5	202.2	106.1	51.0
All fields	130.2	135.1	103.8	78.9

Refined Products

The refining side of the petroleum industry was not behind the crude oil side in record-making during 1923. In production of gasoline the refiners made a strong effort to show that they could take care of all the crude that could be delivered from the wells of the country. They succeeded so well that they produced 7,555,945,143 gallons—and they produced too much. So, again, as on the crude oil side, prices hit the toboggan right in the middle of the big season of motor consumption, and they stayed on the declivity until November.

The enormous weight of production began to depress the market in April. It broke the market in July—and almost broke the refining industry before the worst was reached. Here is the record for the year, taken from the representative prices used in the Reporter's monthly analysis of market trends:—

	Cents per gallon.
January	12.90
February	14.40
March	14.92
April	1403
May	12.54
June	12.77
July	10.94
August	9.80
September	8.48
October	8.15
November	7.80
December	8.10

These are representative prices covering Eastern, mid-Western and Midcontinent refinery centers. In the last named section gasoline sold openly as low as 6 cents per gallon, and in some instances a little lower than that.

Kerosene was neglected in the mad rush to produce more and still more gasoline. The late coming of winter curtailed demand, and hence there was no skyrocketing of prices, such as would normally have resulted from the paucity of stocks. Export demand was quite heavy, however, and kept the market at levels well above those of 1922.

Considerable effort was put forth during the year to increase the use of oil as fuel. This was directed to the popularizing, not only of heavy fuel oil, but also of the distillates in the gas oil range, suitable for use in domestic heating apparatus. Co-operation with manufacturers of household oil-burning equipment was undertaken by the petroleum industry. And in the central portion of the country, especially, a heavy demand for furnace oils was built up. The promise in this direction, should satisfactory marketing methods be developed, is for a greatly increased use of oil fuels.

Statistical records of 1923 refining activities, based on records compiled by the Bureau of Mines, follow:—

Gasoline

Gasoline production in the United States during the year 1923 was 7,555,945,143 gallons, a daily average of 20,701,220 gallons and an increase of 21.83 percent over the output of 1922. Imports were 191,313,540 gallons, an increase of 207.91 percent over the preceding year. The total new supply (production plus import) in 1923 was 7,747,258,683 gallons, a daily average of 21,225,366 gallons or 23.67 percent over the 1922 new supply. For the entire year the new supply exceeded the total demand by 2.53 percent. The December output of gasoline reached a new high peak amounting to 659,168,606 gallons, which was 108,000 gallons above the previous record in October.

For the year 1923 the indicated domestic demand amounted to 6,685,035,280 gallons, a daily average of 18,315,165 gallons. Exports during the year were 871,116,614 gallons, which, added to domestic demand, shows a total demand for the year amounting to 7,556,151,894 gallons, a daily average of 20,701,786 gallons and an increase of 26.64 percent over the total demand in 1922.

Gasoline stocks on hand December 31, 1923, were 1,074,899,650 gallons, an increase during the year of 191,106,789 gallons or 21.62 percent, which compares favorably with the increase of 50.80 percent in stocks during 1922.

Kerosene

Kerosene production in 1923 was 2,348,934,712 gallons, a daily average of 6,435,438 gallons, and an increase of 1.85 percent over the 1922 output. Imports during the year were 301,483 gallons, which added to production, shows a total new supply of 2,349,236,195 gallons. The indicated domestic demand for kerosene during the year was 1,492,535,909 gallons, a daily average of 4,089,139 gallons, and an increase of 1.96 percent over the preceding year. Exports in 1923 were 854,554,951 gallons, about 48,000,000 gallons less than in 1922. The total demand (domestic demand plus exports) was 2,347,090,860 gallons, a decrease of 0.82 percent from the 1922 figures. Stocks were increased only about 2,000,000 gallons during the year, the amount on hand December 31, 1923, being 283,195,667 gallons.

Gas and Fuel Oils

The production of gas and fuel oils in 1923 was 12,074,191,693 gallons, a daily average for the entire year of 33,079,977 gallons and an increase over the preceding year of 12.78 percent. Imports were 516,022,937 gallons. The total new supply amounted to 12,590,214,630 gallons, an increase of 16.25 percent over the preceding year. Domestic demand amounted to 10,978,285,596 gallons, and exports were 1,401,622,173 gallons, making a total demand of 12,379,907,769 gallons, an increase of 14.03 percent over the 1922 figures. Stocks were increased a little over 200,000,000 gallons during the year, amounting at the end of 1923 to 1,515,034,711 gallons.

Monthly Summary, January to December, 1923

	Petroleum transported from producing properties. Total (thousands of barrels).	Petroleum transported from producing properties. Daily average (barrels).	Imports of crude petroleum (includes topped oil). Total (thousands of barrels).	Imports of crude petroleum (includes topped oil). Daily average (barrels).	Exports of crude petroleum. Total (thousands of barrels).	Exports of crude petroleum. Daily average (barrels).	Stocks*. Held on last day of month (thousands of barrels).	Stocks*. Number of days' supply based on daily rate of consumption.	Indicated deliveries to consumers of domestic and imported petroleum.† Total (thousands of barrels).	Indicated deliveries to consumers of domestic and imported petroleum.† Daily average (barrels).	Number of producing oil wells completed during month.
January	51,941	1,675,516	7,307	235,710	762	24,581	258,059	148	53,902	1,738,774	1,208
February	48,130	1,718,929	6,199	221,393	681	24,321	260,026	141	51,681	1,845,750	1,094
March	56,461	1,821,323	8,058	259,935	1,028	33,161	263,310	136	60,207	1,942,161	1,248
April	58,528	1,950,933	6,617	220,567	1,511	50,367	268,925	139	58,019	1,933,967	1,521
May	61,858	1,995,419	5,995	193,387	1,324	42,710	277,785	149	57,669	1,860,290	1,871
June	62,340	2,078,000	5,996	199,867	2,598	86,600	288,406	157	55,117	1,837,233	1,830
July	65,273	2,105,581	6,915	223,065	1,547	49,903	298,172	151	60,875	1,963,710	1,733
August	65,793	2,122,355	7,580	244,516	1,542	49,742	305,342	146	64,661	2,085,839	1,465
September	64,686	2,156,200	6,021	200,700	1,592	53,067	312,668	152	61,789	2,059,633	1,278
October	66,971	2,160,355	6,825	220,161	1,315	42,419	321,972	158	63,177	2,037,968	1,140
November	64,829	2,160,967	6,085	202,833	1,397	46,567	331,077	164	60,412	2,013,733	1,007
December	58,802	1,889,742	8,417	271,515	2,103	67,839	333,053	163	63,230	2,039,677	887
Totals	725,702	.....	82,015	.....	17,400	.....	.....	...	710,739	.....	16,282

* Domestic net pipeline and tank-farm stocks east of California; producers', pipeline and tank-farm stocks (but not refinery stocks) of crude oil, residuum, and tops in California plus stocks of imported crude petroleum and topped oil topped in Mexico held in the United States by importers elsewhere than at refineries.
† Including losses.

Lubricating Oils

The 1923 output of lubricants was 1,097,368,222 gallons, a daily average of 3,006,488 gallons, and an increase of 12.12 percent over the 1922 production. Imports during the year were 1,219,133 gallons. The new supply was 1,098,587,355 gallons, which exceeded by about 7,000,000 gallons the total demand of 1,091,537,072 gallons, including exports of 351,599,047 gallons and domestic demand of 739,938,025 gallons. Stocks at the end of December were 242,785,070 gallons.

Detailed Summary of Refinery Operations

Oil Run to Stills (Barrels)

	Crude oils		Unfinished oils		Natural gas	
	Domestic.	Foreign.	Domestic, net.	Foreign.	gasoline.	Total.
East Coast	94,088,949	22,670,143	3,490,757	4,666,700	187,116	125,103,665
Pennsylvania	21,352,433	.....	485,724	.....	88,625	21,926,782
Indiana & Illinois	51,275,550	.....	828,779	.....	456,309	52,560,638
Oklahoma and Kansas	70,288,702	.....	499,233	.....	1,395,262	72,183,287
Texas	90,748,508	12,625,565	746,835	427,461	1,713,050	106,261,419
Louisiana and Arkansas	33,116,379	7,689,817	.....	681,691	265,165	41,753,052
Colorado and Wyoming	27,175,700	.....	6,293,284	.....	461,016	33,930,000
California	150,205,980	.....	.....	.....	920,464	151,126,444
Totals, U. S.	538,252,291	42,985,525	*	5,775,852	5,487,007	592,500,675
Daily average	1,474,664	117,769	*	15,824	15,033	1,623,290

Output and Losses

	Gasoline, gallons.	Kerosene, gallons.	Gas and fuel oils, gallons.	Lubricants, gallons.	Wax, pounds.
East Coast	1,399,641,744	566,079,099	2,412,659,927	313,978,717	184,781,168
Pennsylvania	315,360,775	151,462,063	201,075,453	167,511,783	77,307,203
Indiana and Illinois	1,015,323,937	216,899,152	665,785,166	106,088,408	37,058,099
Oklahoma and Kansas	1,255,269,897	280,525,957	1,264,672,386	82,141,452	35,657,135
Texas	1,221,475,738	535,784,406	2,117,900,928	235,951,356	52,777,113
Louisiana and Arkansas	433,462,500	255,063,024	728,593,500	25,677,611	46,902,890
Colorado and Wyoming	632,210,387	126,980,692	584,225,282	19,173,283	31,984,886
California	1,283,200,165	216,140,319	4,099,279,051	96,845,612	179,057
Totals, United States	7,555,945,143	2,348,934,712	12,074,191,693	1,097,368,222	466,646,551
Daily average	20,701,220	6,435,438	33,079,977	3,006,488	1,278,484

	Coke, tons.	Asphalt, tons.	Other finished products, gallons.	Net unfinished products, gallons.	Losses, barrels
East Coast	173,286	1,013,469	51,811,912	.....	5,035,542
Pennsylvania	18,766	3,952	13,757,165	.....	1,292,520
Indiana and Illinois	201,122	145,458	43,092,000	.....	1,596,765
Oklahoma and Kansas	30,165	31	14,128,723	.....	2,880,338
Texas	94,461	408,432	110,202	.....	4,336,080
Louisiana and Arkansas	81,590	326,240	30,610,562	150,149,685	727,413
Colorado and Wyoming	71,146	14,272	743,299	.....	791,435
California	.....	415,262	59,372,344	400,472,749	2,260,548
Totals, United States	672,526	2,327,116	213,626,207	*32,148,747	18,921,049
Daily average	1,843	6,376	585,277	*88,079	51,838

* The net balance shows a net excess production over runs to stills of domestic unfinished oils.

Stocks at Refineries December 31, 1923

Crude Oil and Partly Refined Products (Barrels)

	East Coast (New York, Philadelphia and Baltimore).	Pennsylvania, New York, Eastern Ohio and West Virginia.	Indiana and Illinois, Western Ohio, Kentucky and Tennessee.	Oklahoma and Kansas.	Texas.	Louisiana and Arkansas.	Colorado and Wyoming.	California.	Total stocks 1923.	Total stocks 1922.
Domestic crude	5,817,203	2,481,311	1,557,065	4,762,076	4,556,295	3,937,456	1,101,671	5,543,158	29,756,235	22,557,546
Foreign crude	1,495,702	.....	.....	.....	468,982	1,538,504	.....	.....	3,503,188	11,247,330
Totals, crude oils	7,312,905	2,481,311	1,557,065	4,762,076	5,025,277	5,475,960	1,101,671	5,543,158	33,259,423	33,804,876
Domestic, partly refined	4,974,480	551,287	2,067,442	1,553,362	5,217,567	2,809,814	1,727,538	12,453,927	31,355,417	22,589,190
Foreign, partly refined	40,669	.....	.....	.....	60	153,511	.....	.....	194,240	442,572
Totals, other oils	5,015,149	551,287	2,067,442	1,553,362	5,217,627	2,963,325	1,727,538	12,453,927	31,549,657	23,031,762
Total oils to be run	12,328,054	3,032,598	3,624,507	6,315,438	10,242,904	8,439,285	2,829,209	17,997,085	64,809,080	56,836,638
Finished Products										
Gasoline ....gals.	246,275,432	25,141,016	112,923,211	138,199,798	147,399,469	109,592,435	103,587,914	191,780,375	1,074,899,650	883,792,861
Kerosene ....gals.	72,878,573	13,081,478	39,298,959	17,602,348	57,594,116	45,861,474	6,651,316	30,227,403	283,195,667	281,050,332
Gas and fuel oils....gals.	263,811,587	36,776,629	44,503,924	81,238,931	350,329,949	56,467,674	28,743,036	653,182,981	1,515,034,711	1,304,727,850
Lubricants ....gals.	100,070,336	30,586,041	27,148,322	9,815,475	50,896,719	3,499,813	5,774,239	14,994,125	242,785,070	235,734,787
Wax ....lbs.	63,233,274	17,956,366	30,557,349	4,066,214	9,423,023	35,879,395	3,590,809	.....	164,706,430	201,748,370
Coke ....tons	5,386	137	7,619	28,691	2,888	570	6,593	.....	51,884	35,722
Asphalt ....tons	54,000	2,868	14,234	188	11,494	16,142	3,189	12,555	114,670	119,459
All other fin. products..gals.	9,956,800	1,654,429	19,077,199	3,832,821	51,744	10,360,772	218,416	259,438	45,411,619	25,103,467

Petroleum and Its Products: Record of Prices

Crude Prices at Wells

Cabell (W. Va.) Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.36	$2.11	$2.31	$2.11
February	2.11	2.11	2.76	2.31
March	2.11	2.11	2.76	2.76
April	2.11	2.11	2.76	2.41
May	2.11	2.11	2.41	1.91
June	2.36	2.11	1.91	1.71
July	2.36	1.86	1.71	1.71
August	1.86	1.86	1.71	1.71
September	1.86	1.86	1.71	1.35
October	1.86	1.86	1.35	1.35
November	1.86	1.86	1.35	1.20
December	1.86	1.86	1.45	1.35
Year	2.36	1.86	2.76	1.20

Corning (O.) Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.15	$1.90	$2.15	$1.75
February	1.90	1.90	2.30	2.15
March	1.90	1.90	2.30	2.30
April	1.90	1.90	2.30	2.15
May	1.90	1.90	2.15	1.85
June	2.05	1.90	1.85	1.70
July	2.05	1.90	1.70	1.60
August	1.90	1.75	1.60	1.60
September	1.75	1.75	1.60	1.45
October	1.75	1.75	1.45	1.45
November	1.75	1.75	1.45	1.45
December	1.75	1.75	1.45	1.40
Year	2.15	1.75	2.30	1.40

Lima Field

	1922. H.	1922. L.	1923. H	1923. L.
January	$2.48	$2.48	$2.28	$1.98
February	2.48	2.48	2.58	2.28
March	2.48	2.48	2.58	2.58
April	2.48	2.48	2.58	2.38
May	2.48	2.48	2.38	2.18
June	2.48	2.48	2.18	2.08
July	2.48	1.98	2.08	1.88
August	1.98	1.98	1.88	1.88
September	1.98	1.98	1.88	1.68
October	1.98	1.98	1.68	1.68
November	1.98	1.98	1.68	1.43
December	1.98	1.98	1.53	1.43
Year	2.48	1.98	2.58	1.43

Pennsylvania Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$3.50	$3.25	$3.55@—	$3.00@—
February	3.25	3.25	4.00@4.25	3.55@—
March	3.25	3.25	4.00@4.25	4.00@4.25
April	3.25	3.25	4.00@4.25	3.75@4.00
May	3.25	3.25	3.75@4.00	3.25@3.50
June	3.50	3.25	3.25@3.50	3.00@3.25
July	3.50	3.00	3.00@3.25	2.75@3.00
August	3.00	3.00	2.75@3.00	2.75@3.00
September	3.00	3.00	2.75@3.00	2.50@2.75
October	3.00	3.00	2.50@2.75	2.50@2.75
November	3.00	3.00	2.50@2.75	2.35@2.60
December	3.00	3.00	3.00@3.25	2.35@2.60
Year	3.50	3.00	4.00@4.25	2.35@2.60

Waterloo Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.75	$1.25	$1.55	$1.25
February	1.75	1.75	1.85	1.55
March	1.75	1.75	1.85	1.85
April	1.75	1.75	1.85	1.65
May	1.75	1.75	1.65	1.45
June	1.75	1.75	1.45	1.35
July	1.75	1.25	1.35	1.15
August	1.25	1.25	1.15	1.15
September	1.25	1.25	1.15	.95
October	1.25	1.25	.95	.95
November	1.25	1.25	.95	.70
December	1.25	1.25	.80	.70
Year	1.75	1.25	1.85	.70

Wooster (O.) Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.70	$2.70	$2.10	$1.90
February	2.70	2.60	2.50	2.10
March	2.60	2.60	2.50	2.50
April	2.60	2.60	2.50	2.25
May	2.60	2.60	2.25	2.00
June	2.60	2.60	2.00	1.85
July	2.60	2.10	1.85	1.70
August	2.10	2.10	1.70	1.70
September	2.10	2.10	1.70	1.50
October	1.90	1.90	1.50	1.50
November	1.90	1.90	1.50	1.50
December	1.90	1.90	1.50	1.40
Year	2.70	1.90	2.50	1.40

Illinois Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.27	$2.27	$2.37	$1.77
February	2.27	2.27	2.37	2.07
March	2.27	2.27	2.37	2.37
April	2.27	2.27	2.37	2.17
May	2.27	2.27	2.17	1.97
June	2.27	2.27	1.97	1.87
July	2.27	1.77	1.87	1.67
August	1.77	1.77	1.67	1.67
September	1.77	1.77	1.67	1.47
October	1.77	1.77	1.47	1.47
November	1.77	1.77	1.47	1.22
December	1.77	1.77	1.32	1.22
Year	2.27	1.77	2.37	1.22

Indiana Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.28	$2.28	$2.08	$1.78
February	2.28	2.28	2.38	2.08
March	2.28	2.28	2.38	2.38
April	2.28	2.28	2.38	2.18
May	2.28	2.28	2.18	1.98
June	2.28	2.28	1.98	1.88
July	2.28	1.78	1.88	1.68
August	1.78	1.78	1.68	1.68
September	1.78	1.78	1.68	1.48
October	1.78	1.78	1.48	1.48
November	1.78	1.78	1.48	1.23
December	1.78	1.78	1.33	1.23
Year	2.28	1.78	2.38	1.23

Somerset Field, Light Oil

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.40	$2.15	$2.45	$1.95
February	2.15	2.15	2.80	2.45
March	2.15	2.15	2.80	2.80
April	2.15	2.15	2.80	2.45
May	2.15	2.15	2.45	2.10
June	2.15	2.15	2.10	1.75
July	2.40	2.15	1.75	1.55
August	2.40	1.90	1.55	1.55
September	1.90	1.90	1.55	1.40
October	1.95	1.90	1.40	1.40
November	1.95	1.95	1.40	1.30
December	1.95	1.95	1.55	1.30
Year	2.40	1.90	2.80	1.30

Somerset Field, Medium Oil

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.15	$1.90	$2.20	$1.71
February	1.90	1.90	2.55	2.20
March	1.90	1.90	2.55	2.55
April	1.90	1.90	2.55	2.20
May	1.90	1.90	2.20	1.75
June	2.15	1.90	1.75	1.55
July	2.15	1.65	1.55	1.40
August	1.71	1.71	1.40	1.40
September	1.71	1.71	1.40	1.25
October	1.71	1.71	1.25	1.25
November	1.71	1.71	1.25	1.15
December	1.71	1.71	1.40	1.15
Year	2.15	1.65	2.55	1.15

Princeton (Ind.) Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.27	$2.27	$2.07	$1.77
February	2.27	2.27	2.37	2.07
March	2.27	2.27	2.37	2.37
April	2.27	2.27	2.37	2.17
May	2.27	2.27	2.17	1.97
June	2.27	2.27	1.97	1.87
July	2.27	1.77	1.87	1.67
August	1.77	1.77	1.67	1.67
September	1.77	1.77	1.67	1.47
October	1.77	1.77	1.47	1.47
November	1.77	1.77	1.47	1.22
December	1.77	1.77	1.32	1.22
Year	2.27	1.77	2.37	1.22

Plymouth, (Ill.) Field

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.65	$1.15	$1.45	$1.15
February	1.65	1.65	1.75	1.45
March	1.65	1.65	1.75	1.75
April	1.65	1.65	1.75	1.55
May	1.65	1.65	1.55	1.35
June	1.65	1.65	1.35	1.25
July	1.65	1.15	1.25	1.05
August	1.15	1.15	1.05	1.05
September	1.15	1.15	1.05	.85
October	1.15	1.15	.85	.85
November	1.15	1.15	.85	.60
December	1.15	1.15	.70	.60
Year	1.65	1.15	1.75	.60

Homer Field, 35 and Above

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.00	$2.00	$1.60@2.00	$1.40@1.80
February	2.00	2.00	2.00@2.40	1.60@2.00
March	2.00	2.00	2.00@2.40	2.00@2.40
April	2.00	2.00	2.00@2.40	1.90@2.30
May	2.00	2.00	1.90@2.30	1.70@2.10
June	2.00	2.00	1.70@2.10	1.70@2.10
July	2.00	1.50	1.70@2.10	1.60@2.00
August	1.50	1.25	1.60@2.00	1.45
September	1.25	1.25	1.45	1.25
October	1.25	1.25	1.25	1.25
November	1.25	1.25	1.25	1.10
December	1.25	1.25	1.25	1.10
Year	2.00	1.25	2.00@2.40	1.10

Homer Field, 33 to 34.9

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.90	$1.90	$1.45	$1.25
February	1.90	1.90	1.85	1.45
March	1.90	1.90	1.85	1.85
April	1.90	1.90	1.85	1.75
May	1.90	1.90	1.75	1.55
June	1.90	1.90	1.55	1.55
July	1.90	1.40	1.55	1.45
August	1.40	1.15	1.45	1.35
September	1.15	1.15	1.35	1.15
October	1.15	1.15	1.15	1.15
November	1.15	1.15	1.15	1.00
December	1.15	1.15	1.15	1.00
Year	1.90	1.15	1.85	1.00

Homer Field, 31 to 32.9

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.85	$1.85	$1.30	$1.10
February	1.85	1.85	1.70	1.30
March	1.85	1.85	1.70	1.70
April	1.85	1.85	1.70	1.60
May	1.85	1.85	1.60	1.40
June	1.85	1.85	1.40	1.40
July	1.85	1.35	1.40	1.30
August	1.35	1.10	1.30	1.30
September	1.10	1.10	1.30	1.10
October	1.10	1.10	1.10	1.10
November	1.10	1.10	1.10	1.00
December	1.10	1.10	1.10	1.00
Year	1.85	1.10	1.70	1.00

Homer Field, Heavy, Below 31

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.50	$1.50	$0.95	$0.75
February	1.50	1.50	1.35	.95
March	1.50	1.50	1.35	1.35
April	1.50	1.50	1.35	1.25
May	1.50	1.50	1.25	1.05
June	1.50	1.50	1.05	.80@.95
July	1.50	1.00	.80@.95	.80@.95
August	1.00	.75	.95	.95
September	.75	.75	.95	.90
October	.75	.75	.90	.75
November	.75	.75	.75	.75
December	.75	.75	.90	.75
Year	1.50	.75	1.35	.75

Haynesville Field, 33 and Above

1922

	H.	L.
January	$1.85	$1.85
February	1.85	1.50
March	1.85	1.50
April	1.85	1.50
May	1.85	1.50
June	1.85	1.85
July	1.85	1.35
August	1.80@1.25	1.80@1.25
September	1.80@1.25	1.80@1.25
October	1.80@1.25	1.80@1.25
November	1.80@1.25	1.80@1.25
December	1.80@1.25	1.80@1.25
Year	1.85	1.25

1923

	H.	L.
January	$1.45@2.00	$1.25@1.80
February	1.85@2.40	1.45@2.00
March	1.85@2.40	1.85@2.40
April	1.85@2.40	1.75@2.30
May	1.75@2.30	1.55@2.10
June	1.55@2.10	1.45@2.00
July	1.95@2.00	1.45@2.00
August	1.45	1.30
September	1.30	1.10
October	1.10	1.00
November	1.00	1.00
December	1.15	1.00
Year	1.85@2.40	1.00

Haynesville Field, Below 33

1922

	H.	L.
January	$1.75	$1.75
February	1.75	1.40
March	1.40	1.15
April	1.40	1.15
May	1.40	1.15
June	1.75	1.75
July	1.75	1.25
August	1.25@1.10	1.25@1.10
September	1.25@1.10	1.25@1.10
October	1.25@1.10	1.25@1.10
November	1.25@1.10	1.25@1.10
December	1.25@1.10	1.25@1.10
Year	1.75	1.10

1923

	H.	L.
January	$1.80	$1.10
February	1.70	1.30
March	1.70	1.70
April	1.70	1.60
May	1.60	1.20
June	.80@1.30	.80@1.30
July	.80@1.30	.80@1.30
August	1.20	.80@1.20
September	1.20	1.00
October	1.00	.90
November	.90	.90
December	1.05	.90
Year	1.70	.90

El Dorado Field, Below 33

1922

	Per barrel H.	L.
January	$1.75@1.50	$1.75@1.50
February	1.75@1.50	1.75@1.50
March	1.75@1.50	1.75@1.50
April	1.75	1.75
May	1.75	1.75
June	1.75	1.75
July	1.75	1.25
August	1.75	1.00
September	1.00	1.00
October	1.00	1.00
November	1.00	1.00
December	1.25@1.10	1.25@1.10
Year	1.75	1.00

1923

	Per barrel H.	L.
January	$1.30	$1.10
February	1.75	1.30
March	1.70	1.70
April	1.70	1.60
May	1.60	1.20
June	.80@1.30	.80@1.30
July	.80@1.30	.80@1.30
August	1.30	.80@1.30
September	1.30	1.10
October	1.10	1.10
November	1.10	1.00
December	1.15	1.00
Year	1.75	1.00

El Dorado Field, 33 and Aobve

1922

	Per barrel H.	L.
January	$2.00@1.50	$2.00@1.50
February	2.00@1.50	2.00@1.50
March	2.00@1.50	2.00@1.50
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.25	1.25
December	1.80@1.25	1.80@1.25
Year	2.00	1.25

1923

	Per barrel H.	L.
January	$1.45@2.00	$1.25@1.80
February	1.85@2.40	1.45@2.00
March	1.85@2.40	1.85@2.00
April	1.75@2.30	1.75@2.30
May	1.75@2.30	1.55@2.10
June	1.55@2.10	1.45@2.00
July	1.45@2.00	1.45@2.00
August	1.45@2.00	1.45
September	1.45	1.25
October	1.25	1.25
November	1.25	1.10
December	1.25	1.10
Year	1.85@2.40	1.10

De Soto Field

	Per barrel 1922. H.	L.	1923. H.	L.
January	$2.00	$2.00	$1.80	$1.60
February	2.00	2.00	2.20	1.80
March	2.00	2.00	2.20	2.20
April	2.00	2.00	2.20	2.10
May	2.00	2.00	2.10	1.90
June	2.00	2.00	1.90	1.80
July	2.00	1.50	1.80	1.80
August	1.50	1.25	1.80	1.45
September	1.25	1.25	1.45	1.25
October	1.25	1.25	1.25	1.25
November	1.25	1.25	1.25	1.10
December	1.25	1.25	1.25	1.10
Year	2.00	1.25	2.20	1.10

Smackover, 26 and Above

	Barrels 1923. H.	L.
January	$0.95	$0.30
February	1.35	.90
March	1.35	1.35
April	1.35	1.15
May	1.15	.85
June	.85	.85
July	.85	.85
August	.85	.85
September	.85	.75
October	.75	.75
November	.75	.75
December	.90	.75
Year	1.35	.30

Smackover, 25 to 25.9

	Barrels 1923. H.	L.
January	$0.50	$0.30
February	.90	.50
March	1.20	1.20
April	1.20	1.00
May	1.00	.70
June	.70	.70
July	.70	.70
August	.70	.70
September	.70	.60
October	.60	.60
November	.60	.60
December	.75	.60
Year	1.20	.30

Smackover, 24 to 24.9

	Barrels 1923. H.	L.
January	$0.50	$0.30
February	.90	.50
March	1.10	1.10
April	1.10	.90
May	.90	.60
June	.60	.60
July	.60	.60
August	.60	.60
September	.60	.50
October	.50	.50
November	.50	.50
December	.65	.50
Year	1.10	.30

Smackover, Below 24

	Barrels 1923. H.	L.
January	$0.50	$0.30
February	.90	.50
March	.90@1.00	.80@1.00
April	.90@1.00	.60@ .80
May	.60@ .80	.40
June	.40	.40
July	.40	.40
August	.40	.40
September	.40	.40
October	.40	.40
November	.40	.40
December	.55	.40
Year	.90@1.00	.30

Bull Bayou Field, 38 and Above

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.90	$1.90	$1.70	$1.40
February	1.90	1.90	2.00	1.70
March	1.90	1.90	2.00	2.00
April	1.90	1.90	2.00	1.90
May	1.90	1.90	1.90	1.60
June	1.90	1.90	1.60	1.60
July	1.90	1.40	1.60	1.60
August	1.40	1.15	1.60	1.35
September	1.15	1.15	1.35	1.15
October	1.15	1.15	1.15	1.15
November	1.15	1.15	1.15	1.05
December	1.40	1.15	1.20	1.05
Year	1.90	1.15	2.00	1.05

Bull Bayou Field, 32 to 34.9

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.75	$1.75	$1.55	$1.25
February	1.75	1.75	1.85	1.55
March	1.75	1.75	1.85	1.85
April	1.75	1.75	1.85	1.75
May	1.75	1.75	1.75	1.45
June	1.75	1.75	1.45	1.45
July	1.75	1.35	1.45	1.45
August	1.35	1.00	1.45	1.20
September	1.00	1.00	1.20	1.00
October	1.00	1.00	1.00	1.00
November	1.00	1.00	1.00	.75
December	1.25	1.00	.90	.75
Year	1.75	1.00	1.85	.75

Bull Bayou Field, 35 to 37.9

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.80	$1.80	$1.60	$1.30
February	1.80	1.80	1.90	1.60
March	1.80	1.80	1.90	1.90
April	1.80	1.80	1.90	1.80
May	1.80	1.80	1.80	1.50
June	1.80	1.80	1.50	1.50
July	1.80	1.40	1.50	1.50
August	1.40	1.05	1.50	1.25
September	1.05	1.05	1.25	1.05
October	1.05	1.05	1.05	1.05
November	1.05	1.05	1.05	.90
December	1.30	1.05	1.05	.90
Year	1.80	1.05	1.90	.90

Caddo Field, 38 and Above

1922

	Per barrel H.	L.
January	$2.00	$2.00
February	2.00	2.00
March	2.00	2.00
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.25	1.25
December	1.60@1.80	1.25
Year	2.00	1.25

1923

	Per barrel H.	L.
January	$1.90@2.10	$1.60@1.80
February	2.20@2.40	1.90@2.10
March	2.20@2.40	2.20@2.40
April	2.20@2.40	2.10@2.30
May	2.10@2.30	1.80@2.00
June	1.80@2.00	1.80@2.00
July	1.80@2.00	1.80@2.00
August	1.80@2.00	1.45
September	1.45	1.25
October	1.25	1.25
November	1.25	1.10
December	1.25	1.10
Year	2.00@2.40	1.10

Caddo Field, Heavy, Under 32

1922

	Per barrel H.	L.
January	$1.25	$1.25
February	1.25	1.25
March	1.25	1.25
April	1.25	1.25
May	1.25	1.25
June	1.25	1.25
July	1.25	.75
August	.75	.75
September	.75	.75
October	.75	.75
November	.75	.75
December	.75	.75
Year	1.25	.75

1923

	Per barrel H.	L.
January	$1.05@1.40	$0.75@1.10
February	1.50@1.70	1.05@1.40
March	1.50@1.70	1.50@1.70
April	1.50@1.70	1.40@1.60
May	1.40@1.60	.80@1.30
June	.80@1.30	.80@1.30
July	.80@1.30	.80@1.30
August	.80@1.30	.95
September	.95	.75
October	.75	.75
November	.75	.75
December	.90	.75
Year	1.50@1.70	.75

Caddo Field, 35 to 37.9

1922

	Per barrel H.	L.
January	$1.90	$1.90
February	1.90	1.90
March	1.90	1.90
April	1.90	1.90
May	1.90	1.90
June	1.90	1.90
July	1.90	1.40
August	1.40	1.15
September	1.15	1.15
October	1.15	1.15
November	1.15	1.15
December	1.25	1.15
Year	1.90	1.15

1923

	Per barrel H.	L.
January	$1.70@1.90	$1.40@1.60
February	2.00@2.20	1.70@1.90
March	2.00@2.20	2.00@2.20
April	2.00@2.20	1.90@2.10
May	1.90@2.10	1.60@1.80
June	1.60@1.80	1.60@1.80
July	1.60@1.80	1.60@1.80
August	1.60@1.80	1.35
September	1.35	1.15
October	1.15	1.15
November	1.15	1.00
December	1.15	1.00
Year	2.00@2.20	1.00

Caddo Field, 32 to 34.9

1922

	Per barrel H.	L.
January	$1.85	$1.85
February	1.85	1.85
March	1.85	1.85
April	1.85	1.85
May	1.85	1.85
June	1.85	1.85
July	1.85	1.35
August	1.35	1.10
September	1.10	1.10
October	1.10	1.10
November	1.10	1.10
December	1.25	1.10
Year	1.85	1.10

1923

	Per barrel H.	L.
January	$1.40@1.55	$1.10@1.25
February	1.70@1.85	1.40@1.55
March	1.70@1.85	1.70@1.85
April	1.70@1.85	1.60@1.75
May	1.60@1.75	1.30@1.45
June	1.30@1.45	1.30@1.45
July	1.30@1.45	1.30@1.45
August	1.30@1.45	1.30
September	1.30	1.10
October	1.10	1.10
November	1.10	.90
December	1.05	.90
Year	1.70@1.85	.90

Midcontinent Field, Below 28

1922

	Per barrel H.	L.
January	$2.00	$2.00
February	2.00	2.00
March	2.00	2.00
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.25	.90
December	.90	.65
Year	2.00	.65

1923

	Per barrel H.	L.
January	$1.20	$0.65
February	1.50	1.20
March	1.50	1.50
April	1.50	.80
May	.80	.70
June	.70@1.10	.70@1.10
July	.70@1.10	.50@1.10
August	.50@1.10	.50@1.10
September	.50@1.10	.50@ .90
October	.50@ .90	.50@ .90
November	.50@ .90	.40@ .75
December	.40@ .90	.40@ .75
Year	1.50	.40@ .75

Midcontinent Field, 28 to 30.9

1922

	Per barrel H.	L.
January	$2.00	$2.00
February	2.00	2.00
March	2.00	2.00
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.25	1.00
December	1.00	.75
Year	2.00	.75

1923

	Per barrel H.	L.
January	$1.30	$0.75
February	1.60	1.30
March	1.60	1.60
April	1.60	1.30@1.40
May	1.30@1.40	1.20@1.30
June	1.20@1.30	1.20@1.30
July	1.20@1.30	.85@1.30
August	.85@1.30	.85@1.30
September	.85@1.30	.70@ .90
October	.70@ .90	.70@ .90
November	.70@ .90	.60@ .75
December	.60@ .90	.60@ .75
Year	1.60	.60@ .75

Midcontinent Field, 31 to 32.9

	Per barrel 1922. H.	L.	1923. H.	L.
January	$2.00	$2.00	$1.40	$1.10
February	2.00	2.00	1.70	1.40
March	2.00	2.00	1.70	1.70
April	2.00	2.00	1.70	1.60
May	2.00	2.00	1.60	1.50
June	2.00	2.00	1.50	1.30
July	2.00	1.50	1.30	1.30
August	1.50	1.25	1.30	1.30
September	1.25	1.25	1.30	.90
October	1.25	1.25	.90	.80
November	1.25	1.10	.90	.75
December	1.10	1.10	.75@.90	.75
Year	2.00	1.10	1.70	.75

Midcontinent Field, 33 to 39.9

1922

	Per barrel H.	L.
January	$2.00	$2.00
February	2.00	2.00
March	2.00	2.00
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.60	1.25
December	1.60	1.25
Year	2.00	1.25

1923

	Per barrel H.	L.
January	$1.65@2.20	$1.25@1.80
February	1.85@2.40	1.65@2.20
March	1.85@2.40	1.85@2.40
April	1.85@2.40	1.75@2.30
May	1.75@2.30	1.65@2.20
June	1.65@2.20	1.45@2.20
July	1.45@2.20	1.45@2.00
August	1.45@2.00	1.45@2.00
September	1.45	1.30
October	1.10@1.30	1.10@1.30
November	1.10@1.30	1.00
December	1.00@1.15	1.00
Year	1.85@2.40	1.00

Midcontinent Field, 40 and Above

1922

	Per barrel H.	L.
January	$2.00	$2.00
February	2.00	2.00
March	2.00	2.00
April	2.00	2.00
May	2.00	2.00
June	2.00	2.00
July	2.00	1.50
August	1.50	1.25
September	1.25	1.25
October	1.25	1.25
November	1.25	1.25
December	1.80	1.80
Year	2.00	1.25

1923

	Per barrel H.	L.
January	$2.20@2.40	$1.60@1.80
February	2.40@2.60	2.20@2.40
March	2.40@2.60	2.40@2.60
April	2.40@2.60	2.30@2.50
May	2.30@2.50	2.20@2.50
June	2.20@2.50	2.00@2.20
July	2.00@2.20	2.00@2.20
August	2.00@2.20	2.00@2.20
September	2.00	1.75
October	1.25@1.75	1.25@1.75
November	1.25@1.75	1.25
December	1.25@1.40	1.25
Year	2.40@2.60	1.25

Gulf Coast, Grade A

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.25	$1.25	$1.25	$1.25
February	1.25	1.25	1.50	1.25
March	1.25	1.25	1.75	1.50
April	1.25	1.25	1.75	1.50
May	1.25	1.25	1.75	1.50
June	1.25	1.25	1.50	1.40
July	1.25	1.25	1.40	1.25
August	1.25	1.25	1.25	1.00
September	1.25	1.25	1.00	1.00
October	1.25	1.25	1.00	.75
November	1.25	1.25	1.00	.75
December	1.25	1.25	1.25	.75
Year	1.25	1.25	1.75	.75

Gulf Coast, Grade B

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.25	$1.25	$1.25	$1.25
February	1.25	1.25	1.50	1.25
March	1.25	1.25	1.75	1.50
April	1.25	1.25	1.75	1.50
May	1.25	1.25	1.75	1.50
June	1.25	1.25	1.50	1.40
July	1.25	1.25	1.40	1.00
August	1.25	1.25	1.00	1.00
September	1.25	1.25	1.00	1.00
October	1.25	1.25	1.00	.75
November	1.25	1.25	1.00	.75
December	1.25	1.25	1.00	.75
Year	1.25	1.25	1.75	.75

Crichton Field

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.75	$1.75	$1.55	$1.25
February	1.75	1.75	2.00	1.55
March	1.75	1.75	2.00	2.00
April	1.75	1.75	2.00	1.75
May	1.75	1.75	1.75	1.45
June	1.75	1.75	1.45	1.45
July	1.75	1.25	1.45	1.45
August	1.25	1.00	1.45	1.10
September	1.00	1.00	1.10	.90
October	1.00	1.00	.90	.90
November	1.00	1.00	.90	.90
December	1.25	1.00	1.05	.90
Year	1.75	1.00	2.00	.90

Ragland Field

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.15	$1.00	$1.00	$1.00
February	1.00	1.00	1.10	1.00
March	1.00	1.00	1.10	1.10
April	1.00	1.00	1.10	1.10
May	1.00	1.00	1.10	1.00
June	1.25	1.00	1.00	.90
July	1.25	1.00	.90	.75
August	1.00	1.00	.75	.75
September	1.00	1.00	.75	.75
October	1.00	1.00	.75	.75
November	1.00	1.00	.75	.75
December	1.00	1.00	.85	.75
Year	1.25	1.00	1.10	.75

Southern California Fields, 14 to 17.9

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.10	$1.10	$0.60	$0.60
February	1.10	1.10	.60	.60
March	1.10	1.10	.60	.60
April	1.10	1.10	.60	.60
May	1.10	1.10	.60	.60
June	1.10	1.10	.60	.60
July	1.10	.60	.60	.60
August	.60	.60	.60	.60
September	.60	.60	.60	.60
October	.60	.60	.60	.60
November	.60	.60	.60	.60
December	.60	.60	.60	.60
Year	1.10	.60	.60	.60

Southern California Fields, 21

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.20	$1.20	$0.65	$0.65
February	1.20	1.20	.65	.65
March	1.20	1.20	.65	.65
April	1.20	1.20	.65	.65
May	1.20	1.20	.65	.62
June	1.20	1.20	.62	.62
July	1.20	.67	.62	.62
August	.67	.67	.62	.62
September	.67	.67	.62	.62
October	.67	.67	.62	.62
November	.67	.67	.62	.62
December	.67	.67	.62	.62
Year	1.20	.67	.65	.62

Southern California Fields, 26

	Per barrel 1922. H.	L.	1923. H.	L.
January	$1.55	$1.55	$0.90	$0.90
February	1.55	1.55	.90	.90
March	1.55	1.55	.90	.90
April	1.55	1.55	.90	.90
May	1.55	1.55	.90	.77
June	1.55	1.55	.77	.77
July	1.55	1.55	.77	.77
August	1.05	1.05	.77	.77
September	1.05	1.05	.77	.77
October	1.05	1.05	.77	.67
November	1.05	1.05	.67	.67
December	1.05	1.05	.67	.67
Year	1.55	1.05	.90	.67

Southern California Fields, 35 and Above

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.45	$2.45	$1.45	$1.45
February	2.45	2.45	1.45	1.45
March	2.45	2.45	1.45	1.45
April	2.45	2.45	1.45	1.45
May	2.45	2.45	1.45	1.04
June	2.45	2.45	1.04	1.04
July	2.45	1.95	1.04	1.04
August	1.95	1.95	1.04	1.04
September	1.95	1.95	1.04	1.04
October	1.95	1.95	1.04	.76
November	1.95	1.95	.76	.76
December	1.95	1.95	.76	.76
Year	2.45	1.95	1.45	.76

Salt Creek Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.40	$1.40	$1.35	$1.15
February	1.40	1.40	1.65	1.35
March	1.40	1.40	1.65	1.65
April	1.40	1.40	1.65	1.55
May	1.40	1.40	1.55	1.25
June	1.40	1.40	1.25	1.25
July	1.40	.90	1.25	1.25
August	.90	.90	1.25	1.25
September	.70	.70	1.25	.90
October	.70	.70	.90	.75
November	.70	.70	.75	.45
December	1.15	.70	.45	.45
Year	1.40	.70	1.65	.45

Rock Creek Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.50	$1.50	$1.45	$1.15
February	1.50	1.50	1.75	1.45
March	1.50	1.50	1.75	1.75
April	1.50	1.50	1.75	1.55
May	1.50	1.50	1.55	1.25
June	1.50	1.50	1.25	1.25
July	1.50	1.00	1.25	1.25
August	1.00	.80	1.25	1.25
September	.80	.80	1.25	.90
October	.80	.80	.90	.90
November	.80	.80	.90	.60
December	1.15	.80	.60	.60
Year	1.50	.80	1.75	.60

Mule Creek Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.35	$1.35	$1.20	$0.90
February	1.35	1.35	1.50	1.20
March	*1.35	*1.35	1.50	1.50
April	*1.35	*1.35	1.50	1.15
May	*1.35	*1.35	1.15	.85
June	*1.35	*1.35	.85	.85
July	1.35	.85	.85	.85
August	.85	.86	.86	.85
September	.65	.65	.85	.75
October	.65	.65	.75	.73
November	.65	.65	.75	.45
December	.90	.65	.45	.45
Year	1.35	.65	1.50	.45

*Nominal.

Grass Creek Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.90	$1.90	$1.80	$1.50
February	1.90	1.90	2.10	1.80
March	1.90	1.90	2.10	2.10
April	1.90	1.90	2.10	1.85
May	1.90	1.90	1.85	1.55
June	1.90	1.90	1.55	1.55
July	1.90	1.40	1.55	1.55
August	1.40	1.20	1.55	1.55
September	1.20	1.20	1.55	1.35
October	1.20	1.20	1.35	1.35
November	1.20	1.20	1.35	.95
December	1.50	1.20	.95	.95
Year	1.90	1.20	2.10	.95

Greybull Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.95	$1.95	$1.80	$1.50
February	1.95	1.95	2.00	1.80
March	1.95	1.95	2.00	2.00
April	1.95	1.95	2.00	1.90
May	1.95	1.95	1.90	1.60
June	1.95	1.95	1.60	1.60
July	1.95	1.45	1.60	1.60
August	1.45	1.20	1.60	1.60
September	1.20	1.20	1.60	1.35
October	1.20	1.20	1.35	1.35
November	1.20	1.20	1.35	1.35
December	1.50	1.20	1.35	1.35
Year	1.95	1.20	2.00	1.35

Big Muddy (Wyo.) Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.40	$1.40	$1.35	$1.05
February	1.40	1.40	1.65	1.35
March	1.40	1.40	1.65	1.65
April	1.40	1.40	1.65	1.55
May	1.40	1.40	1.55	1.25
June	1.40	1.40	1.25	1.25
July	1.40	.90	1.25	1.25
August	.90	.70	1.25	1.10
September	.70	.70	1.10	.75
October	.70	.70	.75	.75
November	.70	.70	.75	.45
December	1.05	.70	.45	.45
Year	1.40	.70	1.65	.45

Elk Basin Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.90	$1.90	$1.80	$1.50
February	1.90	1.90	2.10	1.80
March	1.90	1.90	2.10	2.10
April	1.90	1.90	2.10	1.90
May	1.90	1.90	1.90	1.60
June	1.90	1.90	1.60	1.60
July	1.90	1.40	1.60	1.60
August	1.40	1.20	1.60	1.60
September	1.20	1.20	1.60	1.35
October	1.20	1.20	1.35	1.35
November	1.20	1.20	1.35	.95
December	1.50	1.20	.95	.95
Year	1.90	1.20	2.10	.95

Oil Springs (Canada) Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.95	$2.95	$2.75	$2.45
February	2.95	2.95	3.00	2.75
March	2.95	2.95	3.00	3.00
April	2.95	2.95	3.00	2.80
May	2.95	2.95	2.80	2.70
June	2.95	2.95	2.70	2.70
July	2.95	2.70	2.70	2.35
August	2.70	2.45	2.35	2.35
September	2.45	2.45	2.35	2.15
October	2.45	2.45	2.15	2.15
November	2.45	2.45	2.15	1.93
December	2.45	2.45	1.93	1.93
Year	2.95	2.45	3.00	1.93

Petrolia (Canada) Field

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.88	$2.88	$2.68	$2.68
February	2.88	2.88	2.98	2.68
March	2.88	2.88	2.98	2.98
April	2.88	2.88	2.98	2.78
May	2.88	2.88	2.78	2.68
June	2.88	2.88	2.68	2.68
July	2.88	2.63	2.68	2.28
August	2.63	2.38	2.28	2.28
September	2.38	2.38	2.28	2.08
October	2.38	2.38	2.08	2.08
November	2.38	2.38	2.08	1.83
December	2.38	2.38	1.83	1.83
Year	2.88	2.38	2.98	1.83

Refinery Quotations

(*Tank Cars*)

Gasoline and Naphtha

Pennsylvania

54 *Gravity, Naphtha*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14½	$0.14¼	$0.14½	$0.13
February	.14¾	.14¼	.17	.14½
March	.15½	.14¾	.17	.16
April	.16½	.15¼	.16½	.15
May	.19	.16½	.15¾	.14
June	.20¾	.20½	.15	.13½
July	.20¾	.19½	.13¾	.12¾
August	.19	.17	.12½	.11¾
September	.16¾	.16½	.11¾	.11½
October	.16¾	.15¾	.11½	.11½
November	.15½	.14½	.11	.10
December	.14½	.13	.10	.09¼
Year	.20¾	.13	.17	.09¼

60 *Gravity, S. R. Gasoline*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.18½	$0.17½	$0.16	$0.15
February	.17½	.17½	.18½	.16
March	.17¾	.17½	.18½	.17½
April	.19	.17½	.18	.16½
May	.22½	.19½	.17	.15½
June	.23½	.23	.16	.15
July	.22½	.21	.15	.14¼
August	.22	.21½	.14	.13
September	.19½	.19½	.13	.13
October	.19½	.18	.13¼	.13
November	.17½	.16¼	.12½	.11¼
December	.16¼	.15	.11	.10½
Year	.23½	.15	.18½	.10½

68 *Gravity, S. R. Gasoline*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.24½	$0.23½	$0.24	$0.22
February	.24	.23½	.26½	.24
March	.24	.23½	.26½	.23
April	.24	.23½	.24	.21½
May	.25½	.23½	.21	.19
June	.26	.26	.20	.18½
July	.26	.26	.18¼	.17¾
August	.26	.26	.17½	.17
September	.25	.25	.17½	.17
October	.25	.24½	.17½	.17
November	.24½	.23½	.16	.14½
December	.23½	.22	.15	.14½
Year	.26	.22	.26½	.14½

Oklahoma

50@52, 450 *End Point, Naphtha*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.12½	$0.11½	$0.11¼	$0.10
February	.12¾	.12	.13½	.12¾
March	.13½	.12½	.13½	.13
April	.13¼	.13½	.13¼	.11¾
May	.17¼	.15	.12	.11¼
June	.17¼	.16½	.12	.11
July	.16¾	.14¼	.10½	.09¼
August	.13¾	.13¼	.09	.07½
September	.13½	.12¼	.07½	.06
October	.11¾	.10½	.06¼	.06
November	.10¼	.09¾	.06½	.06
December	.10¼	.09¾	.07	.06½
Year	.17¼	.09¾	.13½	.06

58@60, 437 *End Point, Gasoline*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13½	$0.12½	$0.12¼	$0.11¼
February	.13¾	.13	.15	.13½
March	.15	.13½	.15	.13¼
April	.16¼	.14¾	.13½	.12½
May	.18¾	.16¼	.13	.12¼
June	.19	.18½	.13	.10½
July	.18½	.15	.11	.09½
August	.15¼	.14¾	.09	.07¾
September	.15	.13¾	.07½	.06½
October	.13½	.11¾	.07	.06¼
November	.11¾	.10¾	.06¾	.06¼
December	.11¾	.10¾	.07½	.06¾
Year	.19	.10¾	.15	.06¼

60@62, 400 *End Point, Gasoline*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14	$0.13	$0.14½	$0.14
February	.15¾	.14	.16	.15¼
March	.16¾	.15½	.16	.15¼
April	.18¼	.16¼	.15¼	.14
May	.21	.17¾	.14½	.11½
June	.21¼	.20¾	.14½	.12½
July	.21¼	.17	.12	.11¼
August	.16¾	.15¾	.11	.09½
September	.17	.16½	.09¼	.08¾
October	.17	.14	.09	.08½
November	.14¾	.13	.08½	.07¼
December	.14¼	.13¼	.08¼	.07¼
Year	.21¼	.13	.16	.07¼

North Texas

56@58, 450 *End Point, Naphtha*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.12¼	$0.12	$0.11¾	$0.10½
February	.13¼	.12	.14½	.12
March	.13¾	.13¼	.14½	.14
April	.15	.13¾	.14¼	.12
May	.19	.15½	.12½	.10¾
June	.18	.17½	.12	.10¾
July	.18	.14½	.10	.08¾
August	.14½	.12½	.08½	.08
September	.13	.12½	.07½	.06
October	.13	.11¼	.06¾	.06
November	.11¾	.10¼	.06¼	.06
December	.10½	.10	.07	.06¼
Year	.19	.10	.14½	.06

58@60, 450 *End Point, Gasoline*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13¼	$0.13	$0.12½	$0.10½
February	.13¾	.13	.15	.12½
March	.14¼	.13	.15	.14
April	.15¾	.14¼	.14½	.12
May	.18¾	.16	.13	.12
June	.18¼	.18	.12½	.11½
July	.18½	.15½	.10¾	.09
August	.14¾	.13	.09	.08½
September	.13½	.13	.08	.06
October	.13½	.12	.06¾	.06¼
November	.11½	.10¾	.06½	.06
December	.11	.10½	.07¼	.06¾
Year	.18¾	.10½	.15	.06

Kerosene

Pennsylvania

45, *Water White*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.07	$0.06	$0.08	$0.07¾
February	.06	.05¾	.07¾	.07¼
March	.05¾	.05¾	.07¾	.07¼
April	.05¼	.05¼	.07¾	.07
May	.06	.05¼	.07	.06½
June	.07½	.06¼	.06½	.06
July	.07½	.07	.06	.05¾
August	.07	.07	.05¾	.05½
September	.08	.07	.06	.05½
October	.09½	.08½	.07¼	.06½
November	.09¼	.08¼	.07½	.07¼
December	.08¼	.08	.07¼	.07
Year	.09½	.05¼	.08	.05½

47, *Water White*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.11	$0.09	$0.10	$0.09½
February	.09	.09	.10	.09½
March	.09	.09	.09¾	.09½
April	.07¾	.07½	.09¾	.09¼
May	.07¾	.07½	.09¼	.08½
June	.08¾	.08¼	.08½	.08
July	.09	.08½	.08	.07¾
August	.08¾	.08½	.07¾	.07½
September	.09	.08½	.07½	.07½
October	.10½	.09¾	.08¼	.08
November	.10½	.10¼	.09	.08½
December	.10	.09½	.08½	.08½
Year	.11	.07½	.10	.07½

Oklahoma

41@43, *Water White*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04½	$0.03½	$0.04¾	$0.04¾
February	.04¼	.03¾	.04¾	.04¼
March	.03½	.03¾	.04¼	.04
April	.03½	.03¼	.04½	.04
May	.04½	.03¾	.04¾	.03¾
June	.04½	.04	.04¼	.03¾
July	.04½	.03¾	.04	.03¾
August	.04½	.03¼	.04	.03¾
September	.05¼	.04½	.04	.03¾
October	.05¼	.05	.04¼	.03¾
November	.05½	.04¾	.04¼	.03¾
December	.04¾	.04½	.04¾	.04¼
Year	.05½	.03¼	.04¾	.03¾

North Texas

41@43, *Water White*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.04½	$0.04¼	$0.05¼	$0.04½
February	.04¼	.03	.04¾	.04
March	.03½	.03	.04½	.04
April	.03½	.03	.04½	.04
May	.03¾	.03¼	.04½	.03½
June	.04	.03½	.04	.03½
July	.04½	.03½	.04¾	.03¼
August	.04½	.03¾	.03½	.03¼
September	.05	.04	.03¾	.03½
October	.05¼	.04½	.04	.03¾
November	.05¼	.04¾	.04	.03¾
December	.05¼	.04¾	.05¼	.04¼
Year	.05¼	.03	.05¼	.03¼

Fuel and Gas Oils

Pennsylvania

36@40, *Fuel Oil*

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.05	$0.04½	$0.06½	$0.05½
February	.04¼	.04	.06½	.06¼
March	.04	.04	.06½	.06½
April	.04½	.04	.06½	.06
May	.04¾	.04½	.06	.06
June	.05½	.04¾	.06	.05
July	.05	.04¾	.05	.05
August	.06	.05½	.05	.04¾
September	.06	.06	.05	.04¾
October	.06¼	.06	.06	.05½
November	.06	.05½	.06	.05¾
December	.05¾	.05½	.06	.05¼
Year	.06	.04	.06½	.04¾

Oklahoma

24@26, *Fuel Oil*

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.85	$0.80	$1.05	$0.90
February	.95	.80	1.05	1.00
March	.95	.85	1.07½	1.00
April	.90	.70	1.30	1.05
May	1.00	.75	1.30	1.05
June	1.10	.95	1.20	1.05
July	1.10	1.00	1.00	.90
August	1.10	1.05	.95	.90
September	1.20	1.10	.95	.90
October	1.10	1.00	.95	.90
November	1.05	.80	.95	.80
December	1.00	.90	.85	.80
Year	1.20	.70	1.30	.80

32@36, Gas Oil

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.02¾	$0.02¼	$0.03¼	$0.02¾
February	.03¼	.02½	.03¾	.02¼
March	.03½	.02¾	.03¾	.03¼
April	.03	.02¾	.03¾	.03¼
May	.03¼	.02½	.03¼	.02¾
June	.04	.03¼	.03	.02¾
July	.03½	.02½	.02¾	.02¼
August	.03	.02½	.02¾	.02½
September	.03¼	.02¾	.02¾	.02½
October	.03½	.02¾	.02¾	.02½
November	.03	.02¾	.02½	.02¼
December	.02¾	.02¾	.02¾	.02¾
Year	.04	.02½	.03¼	.02¼

North Texas

24@26, *Fuel Oil*

Per barrel

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.90	$0.70	$1.05	$0.85
February	.90	.70	1.20	.90
March	.80	.70	1.25	1.10
April	.85	.70	1.25	1.15
May	.80	.70	1.25	1.00
June	.90	.70	1.00	.85
July	.90	.75	.95	.85
August	1.15	.90	1.00	.85
September	1.00	.90	.85	.70
October	1.00	.90	.80	.65
November	1.00	.85	.70	.60
December	.90	.85	.75	.60
Year	1.15	.70	1.25	.60

32@36, *Gas Oil*

Per gallon

	1922 H.	1922 L.	1923. H.	1923. L.
January	$0.03	$0.02¾	$0.03	$0.02¼
February	.03	.02¼	.03¾	.02½
March	.02½	.02¾	.03½	.03
April	.02¾	.02	.03½	.03
May	.02½	.02	.03½	.02½
June	.02¾	.02¼	.03	.02½
July	.02¾	.02	.03	.02½
August	.02½	.02	.02¼	.02¼
September	.02¾	.02¼	.02½	.02¼
October	.03	.02¼	.02½	.02¼
November	.03	.02¼	.02¾	.02¼
December	.03	.02½	.02¾	.02¼
Year	.03	.02	.03½	.02¼

Lubricating Oils

Pennsylvania

Neutral Oil

200 Vis., No. 3 Color

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.20	$0.19	$0.26	$0.23½
February	.20½	.19	.33	.26½
March	.23	.20	.33	.33
April	.24	.22	.33	.33
May	.25	.23¾	.33	.33
June	.27	.25½	.33	.32
July	.27	.26½	.32	.30
August	.26½	.26½	.30	.29½
September	.25½	.25½	.27	.26
October	.25½	.25	.27	.26
November	.25	.23½	.27	.26
December	.23¾	.23¼	.27	.26
Year	.27	.19	.33	.26

Pennsylvania

Cylinder Stock

600, Steam Refined

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13¼	$0.10½	$0.10	$0.07
February	.13	.10½	.16	.07
March	.13	.11	.16	.16
April	.11	.10½	.16	.15
May	.13	.11	.15¼	.13½
June	.14	.13	.13½	.11½
July	.14	.13	.11¾	.11¼
August	.13	.13	.11	.10
September	.12	.11½	.10	.10
October	.11½	.10½	.10½	.10
November	.10½	.09½	.11½	.11¼
December	.10	.09½	.12½	.11½
Year	.14	.09½	.16	.07

South Texas

Neutral Oil

200 Vis., No. 3 Color

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13½	$0.12	$0.13	$0.12
February	.13½	.11	.13	.12
March	.13½	.11	.13¼	.13
April	.14	.12	.12½	.11½
May	.13	.12	.12½	.11½
June	.13	.11	.13	.12½
July	.13	.11	.13¼	.13
August	.13	.11	.12½	.10½
September	.13	.10½	.11½	.10½
October	.11½	.10½	.12	.10
November	.13	.11	.12	.11
December	.13	.12	.13	.12
Year	.14	.10½	.13¼	.10

Oklahoma

Neutral Oil

200 Vis., No. 3 Color

Per gallon

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13	$0.12	$0.12½	$0.12
February	.13	.12	.13¼	.12
March	.13	.12	.13¼	.13
April	.13	.11	.13¼	.13
May	.13½	.12½	.13¼	.13
June	.13	.12½	.13¼	.13
July	.13	.11½	.13¼	.13
August	.11½	.11¼	.13¼	.13
September	.11½	.11¼	.13	.12¾
October	.11½	.11¼	.15½	.14½
November	.11½	.11	.15	.14½
December	.12½	.11½	.13	.12
Year	.13½	.11	.15½	.12

Paraffin Wax

Pennsylvania

122@124, *White, Crude, Scale*

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.02¾	$0.02¼	$0.02¾	$0.02¾
February	.02¾	.02¼	.03	.02¾
March	.02¾	.02¼	.03	.03
April	.02½	.02¼	.03	.03
May	.02½	.02¼	.03	.02½
June	.02½	.02¾	.02¾	.02½
July	.02¾	.02½	.02¾	.02½
August	.02¾	.02½	.02¾	.02½
September	.02½	.02½	.02¾	.02½
October	.02¾	.02¾	.03	.02½
November	.02¾	.02¾	.03¼	.03
December	.02¾	.02¾	.03¼	.03¼
Year	.02¾	.02¼	.03¼	.02½

Oklahoma

122@124, *E. M. P., White, Crude, Scale*

Per pound

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.02¼	$0.02	$0.02¼	$0.02
February	.02½	.02	.02¾	.02¼
March	.02	.01¾	.02¼	.02¼
April	.02	.01¾	.02½	.02¼
May	.02½	.01¾	.02½	.02
June	.02¾	.02	.02½	.02
July	.02¾	.02	.02½	.02
August	.02¾	.02	.02½	.02
September	.02½	.02	.02½	.02
October	.02½	.02	.02½	.02
November	.02½	.02	.02½	.02½
December	.02½	.02	.02¾	.02¾
Year	.02½	.01¾	.02¾	.02

Drugs and Fine Chemicals: Market Review

Drugs and fine chemicals during 1923 were mostly steady as to prices and satisfactory as to volume of business. In the main, the trend of values was upward but, allowing for a few exceptions, the movements were gentle and at no time indicated a strong compelling surge toward price levels generally higher. The period of greatest price activity from a speculative point of view came in September, coincident with the Japanese earthquake. But one article—menthol—was affected at this time; in fact, speculation was absent from the general market most of the year. Some difficulty was experienced in the latter part of the year by the growth of competition offered by importers of certain fine chemicals. Also, there was some disturbance caused by resale offerings from time to time. But both these developments were specialized; they came in individual items and the list of drugs and fine chemicals as a whole was not affected. The general undertone of the market for the greater part of the year was one of steadiness both as to volume of business and the prices obtained.

The Reporter's Index Number provides a means for illustrating market trend throughout the year. The number is compiled weekly from a group of fine chemicals, drugs, and raw materials. The articles chosen are thoroughly representative, and accurately reflect the general trend and sentiment of the market.

The following tabulation shows the index number on the first of each month:

Index Numbers

35 Representative Materials

(Normal 136)

	1923.	1922.
January	177.2	153
February	171.5	152.1
March	172.6	149.9
April	172.8	152
May	171.3	152
June	172.2	150.1
July	185.8	150.8
August	185.2	148.4
September	184.7	155
October	212.4	162.4
November	201	167.1
December 1	198.2	176
December 31	190.2	178.6

A study of the above table reveals the fact that beginning in February—after the sharp downward dip from the January figure—the market remained well stabilized until July, when the number rose sharply. The higher index level then attained remained until October, when the full effect of the menthol speculation was felt and the number jumped abruptly. Of course, the advance in the number during September brought about the October 1 position. The last quarter of the year found the number declining rather sharply, following cessation of advancing prices and speculation in menthol.

A detailed and specific study of important items follows; the list might be augmented considerably but without adding anything to the understanding of market trend and conditions which the following will give.

In acetanilide, the year opened with prices at 35c. per pound and the market fairly steady. Subsequently production costs were lowered and competition increased. Quotations were dropped to 32c. per pound in June and remained thereat throughout the balance of the year. As the year drew to a close, there was talk of lower prices because of an expected decline to come in acetic acid. Also, for the last quarter of the year, there was an increase in price shading, especially among second hands who were able to shade the market to 30c. per pound and did it.

Acetphenetidin was absolutely without important development and prices remained at $1.85 to $1.90 per pound. Business was said to have been fairly good and was steady, but other articles have in some measure supplanted the use of this material. But one maker served the consuming trade throughout the year.

Alcohols Strong

In ethyl and denatured alcohol, 1923 was a year of steadily increasing prices and growth of strength. For the first four months, completely denatured alcohol, formula No. 5, was firm at 32c. per pound. During this time there was a fair amount of business done, but at the end of the heaviest consuming season there remained in the hands of jobbers and dealers a considerable amount of alcohol. This did not prove in the end to be a depressive on the market, as demand during the succeeding months expanded rapidly and soon eliminated any danger of prices being depressed. In May, leading distillers advanced prices to 34c. per gallon and that price remained good for June and part of July. In the latter part of July, prices were raised to 37c. per pound and remained there through August. In September, quotations were moved up again, this time to 38½c. per pound. October noted a further rise to 40½c. Late in November 45½c. per pound was named and that price not only reigned for the balance of 1923 but proved to be the high for the year also.

In ethyl alcohol a similar history was revealed, save for the fact that the advance did not start so soon as it did in denatured. The year opened at $4.69 per gallon and remained there until October, when a sharp advance placed quotations at $4.74 per gallon. November found a still higher price named at $4.78 per gallon, the high and final figure for the year.

Production of alcohol in 1923 reached 122,402,850 proof gallons, of which quantity 10,743,380 gallons were withdrawn in the form of tax paid alcohol. In 1922, the tax paid alcohol withdrawal totaled 16,363,302 gallons from a production of 79,906,101 gallons. Production in 1923 increased 42,496,749 gallons. Use of tax paid alcohol decreased by 5,619,922 gallons. This indicated an increase in the trend toward the use of denatured alcohol. The production of completely denatured alcohol in 1923 was approximately 27,000,000 wine gallons; specially denatured, 30,000,000 wine gallons; total, approximately 57,000,000 wine gallons. The distribution of production of completely denatured according to formula was as follows; 1922 production in brackets: No. 1, 455,833 gallons (166,216); No. 2, 541,418 gallons (300,192); No. 3, 270,431 gallons (117,371); No. 4 34,201 gallons (22,596); No. 5, 18,809,225 gallons (9,843,651); No. 6, 6,912,309 gallons (5,759,877); total, 27,013,418 gallons (16,209,903).

Methanol was mostly dull, with prices holding at $1.13 per gallon for the first eight months of the year. That is, the openly named price was unchanged for that period, but toward the end of July there was a liberal amount of price cutting on firm orders. This eventually brought an open drop to 95c. in September, followed by a still further revision to 88c. per gallon in October. This price continued for the balance of the year.

Production of methanol in 1923 totaled 8,593,727 gallons, as against 6,808,911 gallons in 1922. Shipments in 1923 totaled 8,000,617 gallons, as compared with 7,626,761 gallons in 1922. Stocks

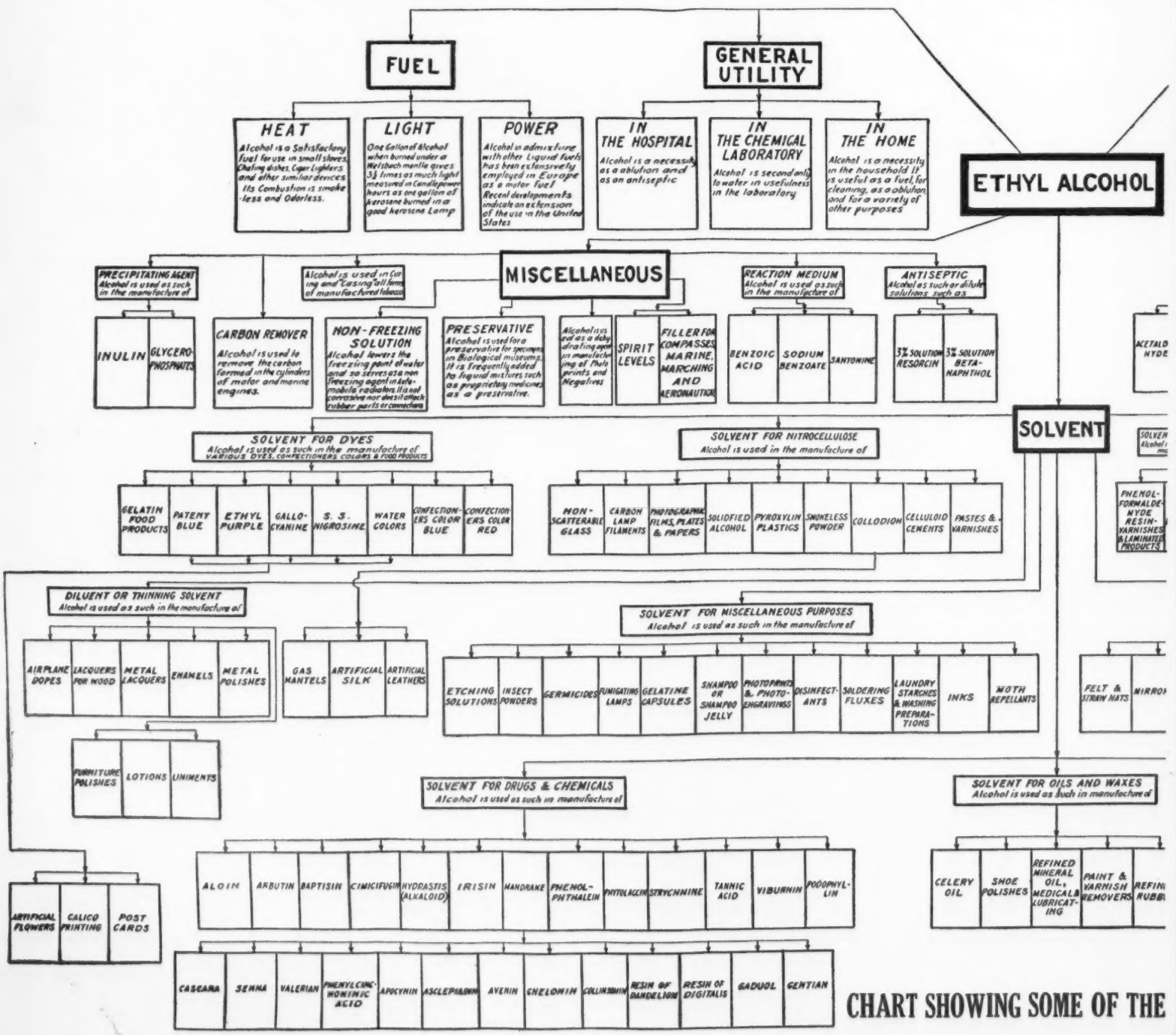

ETHYL ALCOHOL
FUEL
HEAT
Alcohol is a Satisfactory fuel for use in small stoves, Chafing dishes, Cigar Lighters and other similar devices. Its Combustion is smoke -less and Odorless.
LIGHT
One Gallon of Alcohol when burned under a Welsbach mantle gives 5½ times as much light measured in Candlepower hours as one gallon of kerosene burned in a good kerosene Lamp
POWER
Alcohol in admixture with other Liquid fuels has been extensively employed in Europe as a motor fuel Recent developments indicate an extension of the use in the United States
GENERAL UTILITY
IN THE HOSPITAL
Alcohol is a necessity as a ablution and as an antiseptic
IN THE CHEMICAL LABORATORY
Alcohol is second only to water in usefulness in the laboratory
IN THE HOME
Alcohol is a necessity in the household It is useful as a fuel, for cleaning, as a ablution, and for a variety of other purposes
MISCELLANEOUS
PRECIPITATING AGENT Alcohol is used as such in the manufacture of
INULIN
GLYCERO-PHOSPHATES
Alcohol is used in Curing and Casing all forms of manufactured tobacco
CARBON REMOVER
Alcohol is used to remove the carbon formed in the cylinders of motor and marine engines.
NON-FREEZING SOLUTION
Alcohol lowers the freezing point of water and so serves as a non freezing agent in Automobile radiators. It is not corrosive nor does it attack rubber parts or connections
PRESERVATIVE
Alcohol is used for a preservative for specimens in Biological museums. It is frequently added to liquid mixtures such as proprietary medicines as a preservative.
Alcohol is used as a dehydrating agent in manufacturing of Photo prints and Negatives
SPIRIT LEVELS
FILLER FOR COMPASSES MARINE, MARCHING AND AERONAUTICAL
REACTION MEDIUM Alcohol is used as such in the manufacture of
BENZOIC ACID
SODIUM BENZOATE
SANTONINE
ANTISEPTIC Alcohol as such or diluted solutions such as
3% SOLUTION RESORCIN
3% SOLUTION BETA-NAPHTHOL
ACETALDEHYDE
SOLVENT
SOLVENT FOR DYES Alcohol is used as such in the manufacture of VARIOUS DYES, CONFECTIONERS, COLORS & FOOD PRODUCTS
GELATIN FOOD PRODUCTS
PATENT BLUE
ETHYL PURPLE
GALLOCYANINE
S. S. NIGROSINE
WATER COLORS
CONFECTIONERS COLOR BLUE
CONFECTIONERS COLOR RED
SOLVENT FOR NITROCELLULOSE Alcohol is used in the manufacture of
NON-SCATTERABLE GLASS
CARBON LAMP FILAMENTS
PHOTOGRAPHIC FILMS, PLATES & PAPERS
SOLIDIFIED ALCOHOL
PYROXYLIN PLASTICS
SMOKELESS POWDER
COLLODION
CELLULOID CEMENTS
PASTES & VARNISHES
PHENOL-FORMALDEHYDE RESIN-VARNISHES & LAMINATED PRODUCTS
DILUENT OR THINNING SOLVENT Alcohol is used as such in the manufacture of
AIRPLANE DOPES
LACQUERS FOR WOOD
METAL LACQUERS
ENAMELS
METAL POLISHES
GAS MANTELS
ARTIFICIAL SILK
ARTIFICIAL LEATHERS
FURNITURE POLISHES
LOTIONS
LINIMENTS
SOLVENT FOR MISCELLANEOUS PURPOSES Alcohol is used as such in the manufacture of
ETCHING SOLUTIONS
INSECT POWDERS
GERMICIDES
FUMIGATING LAMPS
GELATINE CAPSULES
SHAMPOO OR SHAMPOO JELLY
PHOTOPRINTS & PHOTO-ENGRAVINGS
DISINFECTANTS
SOLDERING FLUXES
LAUNDRY STARCHES & WASHING PREPARATIONS
INKS
MOTH REPELLANTS
FELT & STRAW HATS
MIRRORS
SOLVENT FOR DRUGS & CHEMICALS Alcohol is used as such in manufacture of
ALOIN
ARBUTIN
BAPTISIN
CIMICIFUGIN
HYDRASTIS (ALKALOID)
IRISIN
MANDRAKE
PHENOLPHTHALEIN
PHYTOLACCIN
STRYCHNINE
TANNIC ACID
VIBURNIN
PODOPHYLLIN
CASCARA
SENNA
VALERIAN
PHENYLCINCHONINIC ACID
APOCYNIN
ASCLEPIADIN
AVENIN
CHELONIN
COLLINSONIN
RESIN OF DANDELION
RESIN OF DIGITALIS
GADUOL
GENTIAN
SOLVENT FOR OILS AND WAXES Alcohol is used as such in manufacture of
CELERY OIL
SHOE POLISHES
REFINED MINERAL OIL, MEDICAL & LUBRICATING
PAINT & VARNISH REMOVERS
ARTIFICIAL FLOWERS
CALICO PRINTING
POST CARDS

CHART SHOWING SOME OF THE

at the end of 1923 totaled 2,592,298 gallons, as compared with 2,006,617 gallons at the equivalent time in 1922.

Detailed figures on methanol production, etc., will be found elsewhere. Toward the close of the year production plants were shut down. This gave a firmer tone to the market, especially considering the weakness in acetate of lime and charcoal, both of which were stocked so high as to create a bearish sentiment. This reflected on methanol directly. The stocks of charcoal and acetate of lime were such as not to warrant production save on a very small scale for some time to come. This meant that the production of menthanol would be curtailed. The tendency of alcohol prices late in the year was toward a higher level.

Formaldehyde Improved

This strength in methanol developed a corresponding condition in formaldehyde. Pricewise, formaldehyde was not an especially profitable commodity during 1923. Opening the year at 16c. per pound and staying thereat to the middle of April, prices then began to decline as competition expanded. In April, 14½c. per pound was named; in July, 14c. ruled; in August it was cut to 13½c. and again to 12½c. per pound. October did business at 12c. and 11c. per pound. In December it was shaded to 10¾c. per pound, but firmed up slightly toward the end of the year and ruled at 11c. per pound in carlots.

The firming up was incidental to the improvement in the methanol potential. Exports of formaldehyde were heavy during the year, the movement to the United Kingdom being especially large; so much so that a large surplus existed in that market at the end of the year and it seemed difficult to understand just how formaldehyde, during the early part of 1924, per pound was to experience the higher prices that the stronger methanol market was alleged to warrant.

Salicylates Competitive

While many commodities followed closely the movements in raw materials, others did not. The salicylate group and phenol is an excellent example. Phenol underwent a period of sharp and sustained price advances from the beginning of the year until June, but the salicylate group failed to profit by the sharply increased cost of raw material. Phenol rose from 30c. in January to 58c. in April, and in June the price was still high at 50c. per pound. Selecting acetylsalicylic acid as illustrative of the salicylate group, the January price was $1.05 per pound with the makers. The resale market stood at $1 per pound. During January-May, the makers continued to quote $1.05 per pound, but the resale price fluctuated between $1 and 88c. per pound. In June, prices were reduced to 95c. per pound, and by August the makers had a 75c. per pound schedule in effect as compared with the resale price at 72½c. per pound. These prices prevailed for the balance of the year.

After the high of phenol at 58c. in April, that market declined more or less steadily from month to month and in December the price was down to 25c. per pound with the producers. The failure of makers to advance prices early in the year, coincident with phenol, was due to the severest kind of competition. Some producers tried to establish higher prices on their own initiative but failed. This competition was the feature of the year in all salicylates and it was as keen of the declining market in phenol over the second half of 1923 as it was during the rising market of the first semester.

Bismuth Salts Firmer Than Metal

Among the stable items such as the mercurials, iodides and bismuth salts there was not a great deal of feature movement. Bismuth subnitrate opened the year at $2.65 per pound and the price continued there until some time in February, when $2.90 per pound was established due to the raised cost of metal that followed on the steps of higher sterling exchange. During March, $2.90 per pound ruled but in April, prices were reduced to $2.75 per pound. For April, May, June and part of July, $2.90 per pound was in effect, but toward the latter part of July prices again advanced to $2.90 per pound, there to remain for the balance of the year. In July, metal stood at $2.80 and remained there until October when $2.70 per pound was named and held for the rest of the year. The first of October found exchange at $4.54 to the pound sterling. December 31, 1923, it was $4.32⅛.

Thus with the cost and spot price of metal showing an easier trend because of exchange, the bismuth group was held hard at unchanged prices. Even when metal was eventually dropped to $2.50 per pound—as it was shortly after the turn of the year—the salt prices held unchanged.

The iodide group was mostly without price change. Potash iodide was noted at $3.60 per pound in January, but in February $3.75 per pound was named by the makers, and that price continued for the balance of the year. During the last quarter the market showed weakness, due to the decline in sterling exchange, which affected the cost of crude iodine, and the growth of competition between domestic makers themselves, and also between the domestic producers and importers of foreign goods. This weakness gained headway and suggested price cutting on important business, and a probably lower schedule of prices after the turn of the year.

Mercurials failed to change price at all. Calomel opened and closed the year at $1.25; bisulphate, 86c; red precipitate, $1.38; white precipitate, $1.49; blue mass, 62c.; ointment, one-third, 59c.; 50 percent, 80c. per pound. However, at the beginning of the final quarter offerings and sales to this market of foreign mercurials, particularly of calomel and corrosive sublimate, began to act as a depressive, to develop competition and to forecast a lower schedule of prices for the articles under this foreign influence.

Caffeine alkaloid was irregular. In January the price was $3.75 per pound, but competition drove values lower to $3.70 per pound in May; to $3.65 in June, and still lower to $3.60 per pound sometime in July. At that price the article remained until September, when values went sharply up to $4 per pound, only to be subsequently reduced to $3.85 per pound in October, and there to remain for the balance of the year. The competition between makers and dealers was a constant force throughout the year.

In chloroform there was no change in makers' prices. U.S.P. goods held at 35c. per pound throughout the year. In contrast, some U.S.P. stuff in drums came out at 32c. per pound and advanced to 33c. per pound late in the year. This was supposed to be resale material.

Cocaine underwent no change, remaining at $7 per ounce throughout 1923. At one time a producer attempted to establish a higher price, but the balance of the trade failed to follow the advance and the position of stocks was such as not to assist in the development of a stronger sentiment. Eventually, the attempt was given up, the price again dropping to $7 per pound, although no notice of the return to lower prices to the trade was noted when the attempt failed.

Glycerin Depressed

At no time during the past year could glycerin have been called a strong item. Depression set in around the second quarter of the year and was accompanied by the keenest kind of competition. The price of C.P. in January was 18½c. per pound; in April it dropped to 18c. per pound; May witnessed two declines, which brought the market to 17c. per pound. In July, the low point at 16c. per pound was struck. Following this, the market moved up to 17c. and stayed there until December, when the weak price of 16½c. per pound was named, and much business could have been booked at 16¼c. per pound or under. A part of the weakness and competition was due to curtailed consumption, but it was also in a measure due to declines in foreign exchange late in the year—developments which permitted the importation of European crude at prices fractionally under the domestic crude.

Dynamite fluctuated fractionally from month to month. In January the price was 17¾c. at one time, but subsequently this was shaded to 16½c. per pound. June and July were especially weak months, and the article sold at between 14c. and 15½c. per pound then. The market, during the last five months of the year, was slightly firmer, and it was not until December that dynamite sold under 16½c. per pound; in that month a market was established at 16c. per pound.

Crude glycerin fluctuated between the wide limits of 9½c. low and 12c. high. It was low at 9½c. per pound in June and July and high at 12c. per pound in January. For the greater part of the year prices were between 11c. and 11¾c. per pound.

Quicksilver Decline Steady

Quicksilver was a constantly weakening material during the year. In January the price was $74 per flask and the decline was steady and occasionally abrupt. By April 1 the price was down to $68; by July 1, $66; by October 1, $60, at which price the year ended, being also the lowest price for the entire 12 months. Imports were heavy throughout the year. In addition to ordinary channels of consumption, a special requirement of mercury developed—this being to provide metal enough to operate an entire power plant in Connecticut where a mercury vapor engine was put into commercial operation by one of the largest electrical companies in the country.

Total importations of metal in 1923 were 1,568,551 pounds.

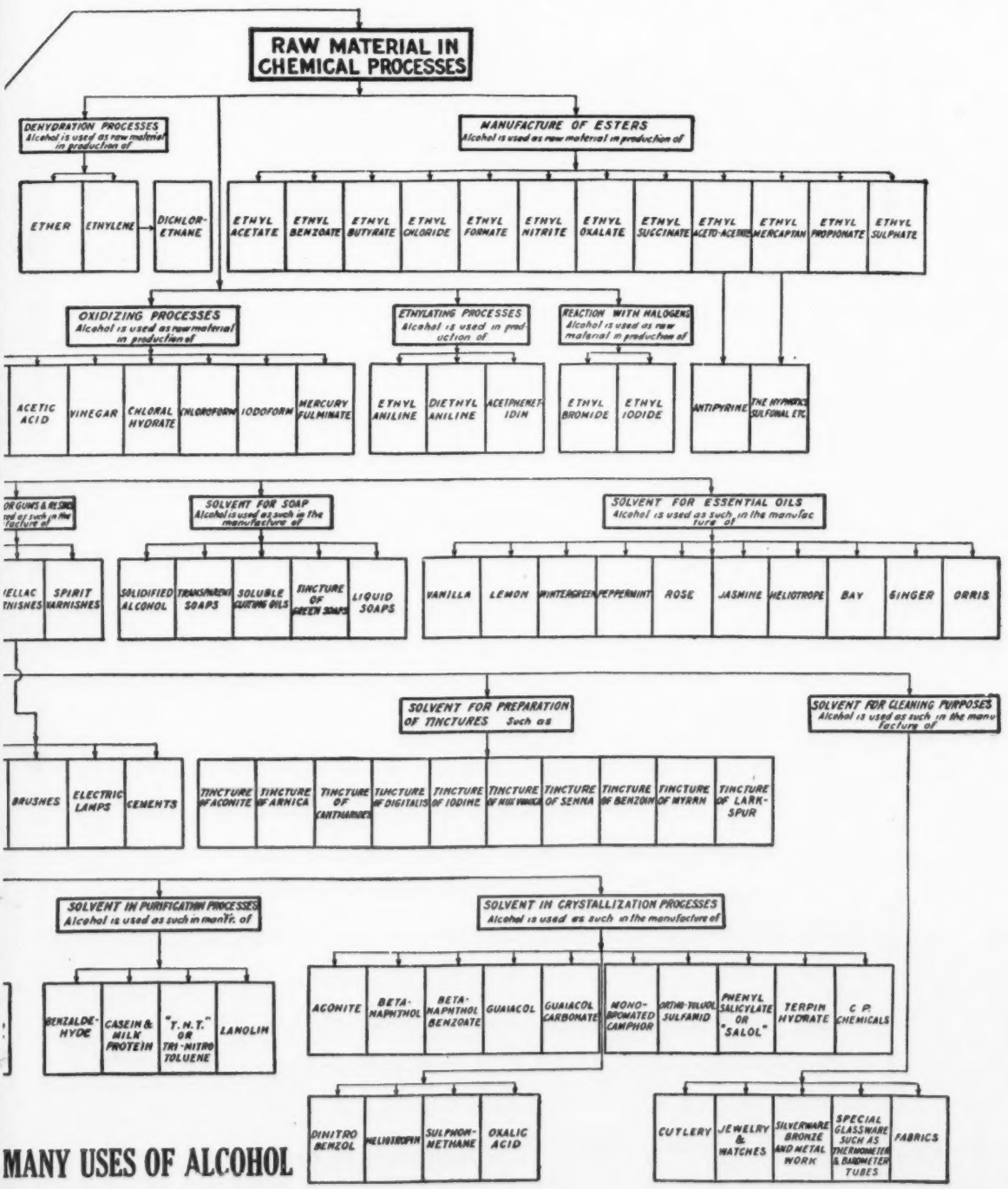
During the first ten months of 1923 sales of mercury from the Almaden mines in Spain amounted to 12,618,414 pesetas, according to a report of the Spanish Ministry of the Treasury, November 2. The following table gives production, stocks and sales of mercury from Almaden mines during ten months of 1923:—

	Flasks		
	Produced and warehoused.	Removed from warehouse.	Stocks at end of month.
January	4,510	8,773	24,594
February	5,501	6,799	23,245
March	5,784	9,065	20,144
April	4,380	7,900	16,624
May	1,570	832	17,362
June	1,565	440	18,487
July	185	1,039	17,633
August	....	1,179	16,454
September	....	7,954	8,500
October	2,400	3,760	7,140
Totals	25,985	47,702	170,153

Total production at the Almaden mines in 1923 was 32,923 flasks. Stocks at the end of December totaled 6,967 flasks.

Menthol—and an Earthquake

Menthol was a highly speculative article almost continuously throughout the year, but the sharpest price advances awaited on the Japanese earthquake in September. In January, the article sold at as low as $8 and as high as $10 per pound. The end of the month found the market under an easier trend and hence through the month of February values fluctuated between $8 and $8.25 per pound. March



was even at $8.25 per pound, the market being dull and demand at a minimum. Late in April prices were further depressed to $7.75 per pound, and that figure ruled also throughout May. Some time in June the article came up with a bang and advanced to $10 per pound on higher shipment cables and a wider spot interest. July and August were months of reaction; July saw the sale of menthol at from $9.70 to $9.90 per pound; in August the price swung between the limits of $9.50 and $9.65 per pound.

The Japanese earthquake occurred in the first week of September, news of the catastrophe reaching New York on a Saturday night—too late for the menthol kings to get busy.

Monday morning found all those of speculative inclination downtown early to see how high menthol could be put. It went up $8.50 within a day or two and the high point for the month was $19.50 per pound; the low was $14.25 per pound. October found prices oscillating between $14.25 and $16.50 per pound; November was again lower at between $14 and $15 per pound, and in December from $10 to $12.75 per pound was the price range.

The Japanese earthquake destroyed the factories in Tokio and caught that market with none too much unsold stock, while in New York the cases were actually numbered. The earthquake threw a scare into many of the smaller buyers of menthol, and it was on such buying that the local interests were able to drive prices to $19.50—sales were actually made at $20 per pound and at one time certain quarters refused to take less than $21 per pound; it is not recorded that they succeeded in doing business at that price.

Synthetic Menthol

Extremely late in the year the New York market noted the development of a propaganda for the use of synthetic menthol manufactured in England. The article was freely distributed in sample quantities of fair size to the larger consumers. Some found that a possibility existed that they could readjust their manufacturing processes to use this article. It liquified easily under heat, one of its attributes rather against a general use of the article. It could not be used in any preparation requiring a U.S.P. menthol, as the synthetic article does not measure up to such requirements.

It was the high prices for the natural article that were in part at least responsible for the development of an interest in the synthetic article. The high prices also stimulated the production of the article from American peppermint oil. When menthol prices are high, production from the low menthol content American peppermint oil can be financially profitable. A house on the north Pacific Coast manufactured and sold to the New York market. A large essential oil house produced for the account of a large eastern manufacturing consumer. Also another New York chemical company produced a very satisfactory natural product.

It was felt in some quarters that this stimulated interest in a synthetic menthol—the direct heritage of the speculative advance in September—would be pursued until such time as the domestic consumers no longer were so completely under the domination of the Japanese producers and American speculators.

A word ought also to be spoken for the American merchants who refused to take full advantage of the exceptional opportunity offered by the Japanese catastrophe. Such operators did their level best to keep actual consumers supplied with menthol in small quantities and succeed strikingly well in keeping control of the market from reaching the hands of speculators entirely. Many consumers were taken care of steadily and the fact that spot prices did not go much higher than they did can in part at least be credited to the merchants who "considered the other fellow" and abated the tendency to line the pockets with silver beyond reasonable extent.

Opiates Potentially Stronger

Opium underwent but two price changes during the entire year under review. The January price was $6.75 per pound and that continued until in May quotations were advanced to $7 per pound. In June, the movement was continued and $8 per pound established. Through the rest of the year $8 per pound was retained unchanged, although one quarter actually did raise prices $2 per pound above that limit and in a considerable measure succeeded in maintaining it.

Morphine sulphate changed price but once despite the steady gain in strength of raw material. Opening the year in January, at $5.35 per ounce, the price was advanced in June to $6,30 per ounce and there remained until the close of the year.

The history of codeine was similar. In January the price was $5.85 per ounce; in June it was made $6.80 per ounce, there to remain until the end of the year.

The key to the market was in the primary source of supply. Prices for replacement goods climbed steadily and for much of the past year the spot price was hardly in excess of replacement costs. Japan was a ready buyer at all times and this, coupled with the moderate sized crop and the shifting of exchange values conspired to rigg the import market here against the price interests of the consuming trade.

It was probably the fact that makers of opiates do not find business so extensive as it was prior to the export embargo and hence do not like to advance prices at the expense of consumption that kept the spot prices for morphine and codeine mostly steady and the subject of a single advance throughout the year. At the end of 1923 it was quite clear that the situation then existing could not go on much farther, as the costs of gum opium had risen so high as to make virtually certain an advance in all derivatives. Much of the domestic consumption of the latter was provided for from stocks of opium in the country over the greater part of 1923. Once these stocks had to be liberally replaced, under specific permit as to quantity issued by the U. S. Government, the full effect of the high cost of opium was felt and seemed bound eventually to force a change in all derivatives.

Competition in Quinine

The quinine market was marked by growth of competition offered as between makers as well as between the producers and secondhand traders. So far as the Dutch and domestic makers were concerned, the price of sulphate was without change at 50c. per ounce throughout the year. As concerned Japanese sulphate, the market was subject to much competitive bidding for large orders and the price usually accepted on big business was around 47c. an ounce for the greater part of the year.

Demand for sulphate and bisulphate was especially good in the late summer and early fall months. The principal buyers of bisulphate were the alcohol denaturers. Demand for alcohol denatured with quinine bisulphate was heavy and a large share of this business went to the Japanese interests who were willing to take on large commitments at 47c. Large domestic interests declared that the best price they ever took was 50c. per ounce; a similar statement came from the Dutch interests; and yet the Japanese sellers declared that they have been forced to accept as low as 46c. per ounce in some cases and 47c. in most because of competition offered by the domestic and Dutch producers.

The Japanese quinine is made from bark obtained from a Java plantation. This cultivation is said to produce about 10 per cent of the entire output of the Dutch growers. The Dutch trust attempted some time during the second semester of the year to get this plantation to become a member of the Kina Bureau—it was independent from the Dutch combination. The attempt failed and Japan still has a fairly adequate source of bark supply. Also, some quarters believed that the Japanese producer has under cultivation in Central America or one of the tropical countries of South America a large undertaking which will enable the Japanese production to seek wider markets.

Rather large quantities of quinine came out of secondhands, especially late in the year. Either all the quinine sold the denaturers did not get into the alcohol, or the science of precipitation took another step toward perfection—for the fact was that the sources of this resale of quinine supply suggested a connection with alcohol at some point along the line.

As a final note for the year, it must be stated that a new manufacturer of quinine salts will be in the market with stocks in 1924, unless plans miscarry. This will be produced in Switzerland. The quantity of bark under contract does not suggest a heavy production; but under conditions of price shading and growing competition as experienced in the United States during 1923, an increase of even 500,000 ounces in world quinine stocks can be of marked influence on price trend during 1924.

New Santonin Agent

In santonin, the outstanding feature was the establishment of a new world selling agent and the reduction in prices that accompanied the new arrangement made by the Russian Government. For the greater part of the year—January to August, inclusive—the price was $175 per pound. In September the Russian controls named a large London house world selling agents, not renewing the contract which it had had with an important Swiss house. With this change came a lower price—$150 per pound—and that price ranged easy through the rest of the year. Considerable santonin seemed to reach the market from sources other than the official agents in the United States, and this gave prices an easier trend and suggested a probable reduction in prices.

Strychnine salts were firm for the greater part of the year. From January to October the price on alkaloid crystals was $1.15 per ounce. In October, prices were reduced to $1 and in November 95c. per pound was established. The market was weak and under depression caused by the offering of increasing quantities of imported strychnine. Importers competed keenly for business and undertones were weak enough to suggest the likelihood of further reduction in the price schedule of domestic makers.

Outstanding Events

Such in a moderate measure was the drug and fine chemical history for 1923. The outstanding events were: The speculative rise in menthol in September; the sharp competition that imported strychnine, idodides and mercurials offered the domestic producers of those articles; the weakening of quinine due to competition offered by the Japanese; the strong and advancing market for gum opium in the primary source of supply and its marked effect on price trend in the United States; the much stronger market for all alcohols and the heavy increased production of denatured.

Business as a whole was most satisfactory. The volume was excellent and most of it was booked with real profit to the sellers. Prices generally displayed a steady undertone in response to the steady request. The outlook for 1924 was excellent at the beginning of that year.

Drugs and Fine Chemicals: Record of Prices

For convenience, the divisions of the opium and mercurial groups are arranged alphabetically under "Mercury" and "Opium"

Acetanilide

In August, 1891, the price was 54c. to 56c.; October 17, 1891, 52c.; 1901, 19c. to 21c.; 1911, 20½c. to 23c.; 1913, 21c. to 22c.; 1918, 80c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.29	$0.29	$0.35	$0.35
February	.32	.29	.35	.35
March	.32½	.31	.35	.35
April	.31	.31	.35	.34
May	.31	.30	.34	.32
June	.30	.29	.32	.32
July	.29	.29	.32	.32
August	.30	.29	.32	.32
September	.28	.28	.32	.32
October	.31	.28	.32	.32
November	.33	.31	.32	.32
December	.35	.33	.32	.32
Year	.35	.28	.35	.32

Acetphenetidin

On November 14, 1910, the price was 80c. to 85c.; October 17, 1911, 82½c. to 85c.; 1913, 84c. to 85c.; 1917, February, $25.

	Per pound— 1922. H.	L.	1923 H.	L.
January	$1.65	$1.65	$1.85	$1.85
February	1.65	1.65	1.85	1.85
March	1.65	1.65	1.85	1.85
April	1.65	1.65	1.85	1.85
May	1.85	1.85	1.85	1.85
June	1.85	1.85	1.85	1.85
July	1.85	1.85	1.85	1.85
August	1.85	1.85	1.85	1.85
September	1.85	1.85	1.85	1.85
October	1.85	1.85	1.85	1.85
November	1.85	1.85	1.85	1.85
December	1.85	1.85	1.85	1.85
Year	1.85	1.65	1.85	1.85

Alcohol

On October 18, 1871, the price of ethyl was $1.87½ to $1.90; 1881, ethyl, $2.18 to $2.20; 1891, $2.30 to $2.32; 1901, ethyl, $2.51 to $2.53; wood, 95 per cent., 60c.; 1911, ethyl, $2.56 to $2.58; methyl, 95 per cent., 50c. to 52c.; denatured, 40c. to 42c.; 1913, ethyl, $2.50 to $2.52; methyl, 46c. to 47c.; denatured, 35c. to 38c.; ethyl, 1917, October, $5.60; methyl, 1920, $3.25; denatured, 1920, May, $1.11.

1922

	Per gallon— Ethyl, 188 proof. H.	L.	Methyl, 95% H.	L.	Denatured No. 5. H.	L.
January	$4.65	$4.65	$0.57	$0.55	$0.40	$0.36
February	4.65	4.65	.55	.50	.36	.34
March	4.65	4.65	.54	.54	.34	.34
April	4.65	4.65	.52	.52	.25	.25
May	4.65	4.65	.52	.52	.28	.28
June	4.65	4.65	.52	.52	.31	.28
July	4.65	4.65	.52	.52	.31	.31
August	4.65	4.65	.52	.52	.32	.31
September	4.65	4.65	.64	.52	.34	.34
October	4.67	4.67	.88	.64	.36	.36
November	4.67	4.67	.98	.88	.36	.36
December	4.67	4.67	1.13	.98	.38	.36
Year	4.67	4.65	1.13	.50	.40	.25

1923

	Per gallon— Ethyl, 188 proof. H.	L.	Methyl, 95% H.	L.	Denatured No. 5. H.	L.
January	$4.69	$4.69	$1.13	$1.13	$0.32	$0.32
February	4.69	4.69	1.13	1.13	.32	.32
March	4.69	4.69	1.13	1.13	.32	.32
April	4.69	4.69	1.13	1.13	.32	.32
May	4.69	4.69	1.13	1.13	.34	.32
June	4.69	4.69	1.13	1.13	.34	.34
July	4.69	4.69	1.13	1.13	.37	.34
August	4.69	4.69	1.13	1.13	.37	.37
September	4.69	4.69	1.13	.95	.38½	.38½
October	4.74	4.69	.95	.88	.40½	.38½
November	4.78	4.74	.88	.88	.45½	.40½
December	4.78	4.78	.88	.88	.45½	.45½
Year	4.78	4.69	1.13	.88	.45½	.32

Nineteen Years' Prices—Methyl 95%

	Per gallon— H.	L.
1923	$1.13	$0.88
1922	1.13	.50
1921	1.65	.57
1920	3.25	1.52
1919	1.35	.90½
1918	1.52	1.17
1917	1.35	.90
1916	.90	.55
1915	.55	.45
1914	.45	.45
1913	.50	.45
1912	.50	.49
1911	.50	.50
1910	.50	.50
1909	.50	.50
1908	.51	.39
1907	.40	.40
1906	.70	.40
1905	.70	.60

Aspirin, Powdered

On March 10, 1917, the price was $3.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.75	$0.70	$1.05	$1.00
February	.72	.70	1.05	.88
March	.75	.75	1.05	.90
April	.78	.76	1.05	.95
May	.78	.76	1.05	.95
June	.76	.73	.95	.90
July	.75	.73	.95	.82½
August	.85	.75	.75	.72½
September	.85	.85	.72½	.72½
October	.95	.85	.72½	.72½
November	1.00	.95	.72½	.72½
December	1.00	1.00	.72½	.72½
Year	1.00	.70	1.05	.72½

Bismuth, Subnitrate, Powdered

On May 6, 1875, the price was $2; October 18, 1881, $1.85; 1891, $1.90; 1901, $1.40 to $1.45; 1911, $1.80 to $1.85; 1913, $1.80 to $1.85; 1918, April, $6.20.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.00	$1.75	$2.65	$2.65
February	2.00	2.00	2.90	2.65
March	2.00	2.00	2.90	2.90
April	2.00	2.00	2.75	2.75
May	2.15	2.00	2.75	2.75
June	2.15	2.15	2.75	2.75
July	2.15	2.15	2.90	2.75
August	2.15	2.15	2.90	2.90
September	2.45	2.30	2.90	2.90
October	2.65	2.45	2.90	2.90
November	2.65	2.65	2.90	2.90
December	2.65	2.65	2.90	2.90
Year	2.65	1.75	2.90	2.65

Borax

On October 18, 1871, the price was 32c. to 33c.; 1881, 12½c. to 13¼c.; 1891, 8¾c. to 8⅞c.; 1901, 7¼c. to 7½c.; 1911, 3½c. to 3¾c.; 1913, 3¾c. to 4c.; 1920, January, 8½c.

1922

	Per pound— Sacks. H.	L.	Barrels. H.	L.
January	$0.05½	$0.05½	$0.05⅝	$0.05⅝
February	.05¼	.05¼	.05⅝	.05½
March	.05¼	.05¼	.05½	.05½
April	.05¼	.05¼	.05½	.05½
May	.05¼	.05¼	.05½	.05½
June	.05¼	.05¼	.05½	.05½
July	.05¼	.05¼	.05½	.05½
August	.05¼	.05¼	.05½	.05½
September	.05¼	.05¼	.05½	.05½
October	.05¼	.05¼	.05½	.05½
November	.05¼	.05¼	.05½	.05½
December	.05¼	.05¼	.05½	.05½
Year	.05½	.05¼	.05⅝	.05½

1923

	Per pound— Sacks. H.	L.	Barrels. H.	L.
January	$0.05¼	$0.05¼	$0.05½	$0.05½
February	.05¼	.05¼	.05½	.05½
March	.05¼	.05¼	.05½	.05½
April	.05¼	.05¼	.05½	.05½
May	.05¼	.05¼	.05½	.05½
June	.05¼	.05¼	.05½	.05¼
July	.05¼	.05¼	.05½	.05¼
August	.05¼	.05¼	.05½	.05¼
September	.05¼	.05¼	.05½	.05¼
October	.05¼	.05¼	.05½	.05½
November	.05¼	.05¼	.05½	.05½
December	.05¼	.05¼	.05½	.05½
Year	.05¼	.05¼	.05½	.05½

Bromine, Purified

On October 18, 1871, the price was 90c.; 1885, 33c.; 1891, 17¾c. to 40c.; 1904, 48c. to 53c.; 1911, 25c. to 30c.; 1913, 30c. to 35c.; 1919, December, 85c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.27	$0.27	$0.30	$0.25
February	.27	.27	.30	.30
March	.27	.27	.30	.30
April	.27	.27	.30	.30
May	.27	.27	.30	.30
June	.27	.27	.30	.30
July	.25	.25	.30	.30
August	.25	.25	.30	.30
September	.25	.25	.30	.30
October	.25	.25	.30	.30
November	.25	.25	.30	.30
December	.25	.25	.30	.30
Year	.27	.25	.30	.25

Bromides

On June 5, 1872, the price of ammonium was $1.90 to $1.95; potassium, May 29, 1872, $1.20 to $1.30; sodium, $3.50 to $3.60; October 18, 1881, ammonium, 42c.; potassium, 29c. to 30c.; sodium, 42c.; 1891, ammonium, 36c.; potassium, 24c. to 26c.; sodium, 36c.; 1901, ammonium, 53c.; potassium, 46c. to 47c.; sodium, 51c.; 1911, ammonium, 41c. to 42c.; potassium, 31c. to 34c.; sodium, 37c. to 38c.; 1913, ammonium, 49c. to 50c.; potassium, 39c. to 40c.; sodium, 45c. to 46c.; ammonium, 1917, January, $1; potassium, 1917, November, $1.45; sodium, 1920, June, 85c.

1922

	Per pound, granular— Ammonium. H.	L.	Potassium. H.	L.	Sodium. H.	L.
January	$0.22	$0.22	$0.14	$0.14	$0.16	$0.16
February	.22	.22	.14	.13	.16	.15
March	.22	.22	.17	.14	.15	.15
April	.22	.17½	.17	.17	.15	.15
May	.17½	.17½	.17	.15½	.15	.15
June	.17½	.16	.15½	.15½	.15	.15
July	.16	.16	.15½	.15½	.15	.15
August	.16	.16	.15½	.15½	.15	.15
September	.16	.16	.15½	.15½	.15	.15
October	.18	.16	.18	.16½	.18	.16½
November	.18	.18	.18	.18	.18	.18
December	.18	.18	.18	.18	.18	.18
Year	.22	.16	.18	.13	.18	.15

1923

	Per pound, granular— Ammonium. H.	L.	Potassium. H.	L.	Sodium. H.	L.
January	$0.18	$0.18	$0.18	$0.18	$0.18	$0.18
February	.18	.18	.18	.18	.18	.18
March	.18	.18	.18	.16½	.20	.18
April	.17	.17	.15½	.15½	.18	.18
May	.21	.21	.18	.18	.21	.21
June	.21	.19	.18	.16	.21	.21
July	.19	.19	.16	.16	.21	.21
August	.19	.19	.16	.16	.21	.21
September	.19	.19	.16	.16	.21	.21
October	.19	.19	.16	.16	.21	.21
November	.19	.19	.16	.16	.21	.19
December	.19	.19	.16	.16	.19	.19
Year	.21	.17	.18	.15½	.21	.18

Camphor, Monobromated

On November 4, 1907, the price was $1.40 to $1.50; October 18, 1911, 95c. to $1.05; 1913, $1 to $1.10; 1919, December, $5.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$1.70	$1.70	$1.90	$1.90
February	1.70	1.70	1.90	1.90
March	1.70	1.70	1.90	1.90
April	1.70	1.70	1.90	1.90
May	1.70	1.70	1.75	1.75
June	1.70	1.70	1.75	1.75
July	1.70	1.70	1.75	1.75
August	1.90	1.70	1.75	1.75
September	1.90	1.90	1.75	1.75
October	1.90	1.90	1.75	1.75
November	1.90	1.90	1.75	1.75
December	1.90	1.90	1.75	1.75
Year	1.90	1.70	1.90	1.75

Cantharides, Chinese

On October, 1871, the price was $1.60; 1881, 90c. to 95c.; 1891, 95c.; 1901, 61c. to 65c.; 1911, 18c. to 20c.; 1913, 45c. to 50c.; 1920, January, $1.40

	Per pound— 1922. H.	L.	1923. H.	L.
January	$1.05	$0.95	$1.10	$1.10
February	1.05	.95	1.10	1.05
March	1.15	.95	1.05	1.05
April	1.25	1.00	1.05	1.05
May	1.25	1.00	1.05	1.05
June	1.00	1.00	1.05	1.00
July	1.00	1.00	1.00	1.00
August	1.00	1.00	1.00	1.00
September	1.00	1.00	1.00	1.00
October	1.05	1.00	1.00	1.00
November	1.10	1.05	1.00	1.00
December	1.10	1.10	1.00	1.00
Year	1.25	.95	1.10	1.00

Caffeine, Alkaloid

On August 20, 1894, the price was $3 to $3.10, October 18, 1901, $3.75 to $4; 1911, $3.15 to $3.25, 1913, $3.40 to $3.50; 1918, April, $13.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$4.25	$4.00	$3.75	$3.75
February	3.75	3.75	3.75	3.75
March	3.75	3.75	3.75	3.75
April	3.75	3.75	3.75	3.75
May	3.75	3.75	3.70	3.70
June	3.75	3.60	3.65	3.65
July	3.50	3.50	3.65	3.60
August	3.50	3.50	3.60	3.60
September	3.50	3.50	4.00	3.60
October	3.75	3.75	3.85	3.75
November	3.75	3.75	3.85	3.85
December	3.75	3.75	3.80	3.80
Year	4.25	3.50	4.00	3.60

Castor Oil, Medicinal

On October 18, 1871, the price was 18c. to 19c.; 1881, 14½c.; 1891, 12c.; 1901, 12c.; 1911, 10½c.; 1913, 9¾c. to 9½c.; 1918, August, 30c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.11½	$0.11½	$0.13	$0.12½
February	.11½	.11½	.13½	.13
March	.11½	.11½	.14	.14
April	.11½	.11½	.14½	.14½
May	.12	.12	.14½	.14½
June	.12	.12	.14½	.14½
July	.12½	.12	.14½	.14
August	.13	.13	.13½	.13⅝
September	.13	.13	.13⅝	.13½
October	.13	.12½	.13½	.13½
November	.12½	.12½	.14½	.13½
December	.12½	.12½	.14½	.14½
Year	.13	.11½	.14½	.12½

Chloral Hydrate

On February 25, 1874, the price was $1.90; October 18, 1881, $1.35 to $1.80; 1891, $1.05 to $1.15; 1901, 95c. to $1; 1911, 74c. to 76c.; 1913, 61c. to 64c.; 1918, April, $2.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.85	$0.85	$0.75	$0.75
February	.85	.85	.75	.75
March	.85	.85	.75	.75
April	.75	.75	.75	.75
May	.75	.75	.75	.75
June	.75	.75	.75	.75
July	.75	.75	.75	.75
August	.75	.75	.75	.75
September	.75	.75	.75	.75
October	.75	.75	.75	.75
November	.75	.75	.75	.75
December	.75	.75	.75	.75
Year	.85	.75	.75	.75

Chloroform, U. S. P.

On February 25, 1874, the price was $1.05; October 18, 1881, 65c.; 1891, 50c. to 55c.; 1901, 45c. to 55c.; 1911, 25c. to 33c.; 1913, 25c. to 30c.; 1917, November, 70c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.37	$0.37	$0.35	$0.35
February	.37	.37	.35	.35
March	.37	.37	.35	.35
April	.37	.33	.35	.35
May	.33	.27	.35	.35
June	.28	.25	.35	.35
July	.25	.25	.35	.35
August	.25	.25	.35	.35
September	.25	.25	.35	.35
October	.35	.25	.35	.35
November	.35	.35	.35	.35
December	.35	.35	.35	.35
Year	.37	.25	.35	.35

Citrate Potash

On May 29, 1872, the price was $1 to $1.05; October 18, 1881, 60c.; 1891, 50c.; 1901, 33c.; 1911, 38c.; 1913, 48c.; 1919, January, $2.02.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.65	$0.65	$0.65	$0.65
February	.65	.65	.65	.65
March	.65	.65	.65	.65
April	.65	.65	.65	.65
May	.65	.65	.65	.65
June	.65	.65	.65	.65
July	.65	.65	.65	.65
August	.65	.65	.65	.65
September	.65	.65	.65	.65
October	.65	.65	.65	.65
November	.65	.65	.65	.65
December	.65	.65	.65	.65
Year	.65	.65	.65	.65

Cocaine, Hydrochloride, Granular

On August 10, 1891, the price was $6.50 to $7; October 18, 1901, $5.50 to $5.55; 1911, $3.25 to $3.55; 1913, $3.35 to $3.60; 1918, June, $11.25.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$6.25	$6.25	$7.00	$7.00
February	6.25	6.25	7.00	7.00
March	6.00	6.00	7.00	7.00
April	6.00	6.00	7.00	7.00
May	6.00	6.00	7.00	7.00
June	6.00	6.00	7.00	7.00
July	6.00	6.00	7.00	7.00
August	6.00	6.00	7.00	7.00
September	7.00	6.00	7.00	7.00
October	7.00	7.00	7.00	7.00
November	7.00	7.00	7.00	7.00
December	7.00	7.00	7.00	7.00
Year	7.00	6.00	7.00	7.00

Cocoa Butter

On April 2, 1879, the price was 37½c.; October 8, 1881, 50c.; 1891, 32c. to 42c.; 1901, 34½c. to 35½c.; 1911, 45c. to 48c.; 1913, 36c. to 39c.; bulk, 1919, March, 52c.; fingers, 1919, September, 52c.

1922

	Per pound— Bulk. H.	L.	Wrapped fingers in 12-lb. boxes. H.	L.
January	$0.34	$0.26½	$0.35½	$0.32½
February	.34	.34	.35½	.35½
March	.34	.28	.35½	.34
April	.27	.27	.34	.34
May	.28	.27	.34	.34
June	.28	.28	.34	.34
July	.28	.28	.35	.34
August	.28	.28	.35	.35
September	.35	.32	.36	.35
October	.33	.33	.36	.35
November	.33	.32	.36½	.35
December	.32	.32	.36	.36
Year	.35	.26½	.36½	.32½

1923

	Per pound— Bulk. H.	L.	Wrapped fingers in 12-lb. boxes. H.	L.
January	$0.32	$0.30½	$0.36	$0.36
February	.30½	.30½	.36	.36
March	.30½	.30½	.36	.36
April	.30½	.29½	.36	.36
May	.28	.27½	.36	.33¾
June	.27	.26¾	.33¾	.33¾
July	.26¾	.26¾	.34	.33¾
August	.26¾	.26¾	.34	.34
September	.25½	.25½	.34	.34
October	.25½	.25½	.34	.34
November	.25½	.23¾	.34	.34
December	.23¾	.23	.34	.34
Year	.32	.23	.36	.33¾

Codliver Oil, Norwegian

In September, 1872, the price was $60; October 18, 1881, $36 to $45; 1891, $23.50 to $32; 1901, $21.50 to $25; 1911, $35 to $37; 1913, $24.50 to $25; 1916, April, $150.

	Per barrel— 1922. H.	L.	1923. H.	L.
January	$21.00	$ 21.00	$22.50	$22.50
February	21.00	19.50	22.50	22.50
March	21.00	18.00	22.50	22.00
April	23.00	23.00	23.50	22.50
May	23.00	22.00	24.50	22.75
June	22.00	21.50	25.50	25.00
July	21.50	21.00	25.00	25.00
August	23.00	21.00	25.00	24.50
September	23.00	22.00	24.50	24.00
October	22.00	22.00	25.00	24.00
November	22.00	21.50	25.50	23.50
December	22.00	21.50	23.50	23.50
Year	23.00	18.00	25.50	22.50

Corn Syrup, 42 Degrees

On February 25, 1874, the price was $9; October 18, 1881, $4 to $4.75; 1891, $2.90 to $3.25; 1901, $1.65; 1911, $2.33; 1913, $2.31; 1917, August, $6.39.

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$2.02	$1.92	$2.82	$2.82
February	2.27	2.17	2.82	2.82
March	2.37	2.27	2.82	2.82
April	2.37	2.27	3.11	2.82
May	2.52	2.37	3.11	3.11
June	2.52	2.52	3.31	3.11
July	2.57	2.52	3.31	3.31
August	2.57	2.57	3.31	3.31
September	2.57	2.57	3.31	3.31
October	2.82	2.57	3.51	3.31
November	2.82	2.82	3.51	3.51
December	2.82	2.82	3.31	3.16
Year	2.82	1.92	3.51	2.82

Coumarin

On August 20, 1894, the price was $17 to $25; October 18, 1901, $4.40 to $4.50; 1911, $3.10 to $3.25; 1913, $3.10 to $3.24; 1918, June, $32.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$3.75	$3.40	$4.00	$4.00
February	3.25	3.00	4.00	4.00
March	3.00	3.00	4.50	4.00
April	3.00	3.00	4.50	4.50
May	3.00	3.00	4.40	4.40
June	3.00	3.00	4.40	4.25
July	3.50	3.00	4.35	4.25
August	3.50	3.40	4.35	4.35
September	3.40	3.40	4.35	4.35
October	4.00	3.40	4.35	4.35
November	4.00	4.00	4.35	4.35
December	4.00	4.00	4.45	4.35
Year	4.00	3.00	4.50	4.00

Cream of Tartar, Powder

On October 18, 1871, the price was 30¼c.; 1881, 32c. to 33c.; 1891, 23c. to 23½c.; 1901, 9c. to 9¾c.; 1911, 23¾c. to 24c.; 1913, 24¾c. to 25c.; 1918, July, 68½c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.26	$0.23½	$0.25	$0.23½
February	.23½	.23½	.24¼	.24½
March	.24½	.23½	.24¼	.24½
April	.24½	.23½	.26	.24½
May	.23½	.23	.26	.25½
June	.23	.23	.25½	.25½
July	.23	.23	.25½	.25½
August	.23	.23	.24¾	.24¾
September	.24	.23	.24¾	.24¾
October	.25	.25	.24½	.24
November	.26½	.25	.24	.24
December	.25	.25	.24	.23
Year	.26½	.23	.26	.23

Epsom Salt, Technical

On October 18, 1871, the price was $3; 1881, $1.50; 1891, $1; 1901, 90c.; 1911, 85c.; 1913, $1.05; 1907, June, $4.37½.

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$1.15	$1.00	$1.20	$1.10
February	1.00	1.00	1.10	1.10
March	1.00	1.00	1.10	1.10
April	1.00	1.00	1.10	1.10
May	1.00	.90	1.10	1.10
June	.90	.90	1.10	1.10
July	.90	.90	1.10	1.10
August	.85	.85	1.10	1.10
September	.85	.85	1.10	1.10
October	.85	.85	1.10	1.10
November	1.20	1.10	1.10	1.10
December	1.20	.85	1.20	1.10
Year	1.20	.85	1.20	1.10

Epsom Salt, U. S. P.

On October 18, 1871, the price was $3; 1881, $1.50; 1891, $1.10; 1901, $1.25; 1911, 90c.; 1913, $1.50; 1917, June, $4.37½.

	Per 100 pounds— 1922. H.	L.	1923. H.	L.
January	$2.50	$2.50	$2.25	$2.20
February	2.50	2.50	2.15	2.15
March	2.50	2.50	2.15	2.15
April	2.50	2.50	2.15	2.15
May	2.50	2.50	2.15	2.15
June	2.00	2.00	2.15	2.00
July	2.00	2.00	2.15	2.15
August	2.00	2.00	2.15	1.75
September	2.00	2.00	1.75	1.75
October	2.00	2.00	1.75	1.75
November	2.25	2.00	1.75	1.75
December	2.25	2.25	1.75	1.75
Year	2.50	2.00	2.25	1.75

Formaldehyde

On April 11, 1898, the price was 19c. to 20c.; October 18, 1901, 16c. to 17c.; 1911, 8½c. to 9½c.; 1913, 8½c. to 9½c.; 1920, March, 85c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.10½	$0.10	$0.16	$0.16
February	.09½	.09	.16	.16
March	.09	.09	.16	.16
April	.09	.09	.16	.14½
May	.09	.08¾	.15	.14½
June	.08¼	.08¼	.14½	.14½
July	.08	.08	.14½	.13½
August	.08	.08	.14	.13½
September	.10	.09	.13½	.12½
October	.12¾	.10	.12	.11
November	.13½	.13½	.11	.11
December	.16	.13½	.11	.10¾
Year	.16	.08	.16	.10¾

Fusel Oil, Refined

On January 3, 1898, the price was 55c. to 60c.; October 18, 1901, 60c. to 75c.; 1911, $3 to $3.25; 1913 $1.35 to $1.50; 1918, January, $5.75.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.50	$2.50	$3.00	$3.00
February	2.50	2.50	3.00	3.00
March	1.40	1.25	3.10	3.00
April	2.15	2.10	Nominal	
May	2.10	2.10	4.75	4.75
June	2.10	2.10	4.75	4.75
July	2.10	2.10	4.75	4.75
August	2.10	2.10	4.75	4.75
September	2.10	2.10	4.75	4.75
October	2.10	2.10	4.75	4.75
November	2.50	2.10	4.75	4.75
December	3.00	2.50	4.75	4.75
Year	3.00	1.25	4.75	3.00

Glycerin, C. P.

On May 29, 1872, the price was 58c. to 80c.; October 18, 1881, 36c. to 65c.; 1891, 15c. to 18c.; 1901, 14½c. to 14¾c.; 1911, 20c.; 1913, 21c.; 1917, October, 70c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.16½	$0.16	$0.18½	$0.18½
February	.16½	.16½	.18½	.18½
March	.16½	.15½	.18½	.18½
April	.15½	.15	.18½	.18
May	.15	.15	.17½	.17
June	.14¾	.14¾	.17	.16
July	.16	.15	.16	.16
August	.17	.16¼	.17	.16½
September	.18	.17	.17	.17
October	.18½	.18½	.17	.17
November	.18½	.18½	.17	.16½
December	.18½	.18½	.16½	.16
Year	.18½	.14¾	.18½	.16

Twelve Years' Prices

	Per pound— H.	L.
1923	$0.18½	$0.16
1922	.18½	.14¾
1921	.20	.14
1920	.28½	.20
1919	.24	.20
1918	.68	.52
1917	.70	.52
1916	.60	.36½
1915	.65	.19¾
1914	.27	.19¾
1913	.21	.18¾
1912	.20	.16

Glycerin, Dynamite

On December 30, 1895, the price was 14¾c. to 15c.; October 18, 1901, 13c. to 13¼c.; 1911, 16¼c. to 16½c.; 1913, 19¾c. to 20c.; 1917, October, 70c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.15¼	$0.15	$0.17¾	$0.16½
February	.15	.14	.17¾	.17½
March	.14	.13	.17½	.16½
April	.13	.13	.16½	.16
May	.13¼	.12½	.16¼	.16
June	.13½	.13¼	.15½	.14
July	.15	.13½	.15½	.14½
August	.15¾	.15	.16	.16
September	.18	.15¼	.16½	.16
October	.17¾	.17	.16½	.16½
November	.17½	.17½	.16½	.16¾
December	.16¾	.16½	.16	.16
Year	.18	.12½	.17¾	.14

Glycerin, Soaplye

On August 1, 1904, the price was 9¼c. to 9¾c.; October 18, 1911, 12½c. to 13c.; 1913, 14¼c. to 14½c.; 1917, October, 51c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.10¼	$0.09½	$0.12	$0.10¾
February	.10¼	.08	.12	.11¾
March	.08½	.08	.11¾	.11¼
April	.08	.08	.11	.10½
May	.08	.08	.11¼	.10¾
June	.09	.08	.10	.09½
July	.10	.09	.11	.09½
August	.10¾	.10	.11¼	.11
September	.12	.10¾	.11	.11
October	.12	.11	.11	.11
November	.11	.11	.11	.10½
December	.10¾	.10¾	.11	.10½
Year	.12	.08	.12	.09½

Glycerin, Saponification

On August 1, 1904, the price was 11c. to 11½c.; October 18, 1911, 14½c. to 15c.; 1913, 6½c. to 17c.; 1917, October, 55c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.12	$0.11	$0.13¼	$0.12
February	.11½	.09	.13¼	.13⅛
March	.09½	.09	.13⅛	.12½
April	.09	.09	.12⅝	.12
May	.10	.08½	.12⅝	.12
June	.09½	.08½	.11⅝	.11
July	.10½	.10	.11⅞	.11
August	.12	.10½	.13	.12¾
September	.13	.12¼	.13	.12½
October	.13	.12½	.12¼	.12
November	.12½	.12½	.12	.11¾
December	.12	.12	.12¼	.11⅞
Year	.13	.08½	.13¾	.11

Haarlem Oil, Domestic

On May 29, 1872, the price of foreign oil was $3.50 to $3.60; October 18, 1901, foreign, $2 to $2.10; 1911, foreign, $1.85 to $2; 1913, foreign, $2; 1918, domestic, $8.50.

	Per gross bottles— 1922. H.	L.	1923. H.	L.
January	$3.50	$3.50	$3.50	$3.50
February	3.50	3.50	3.50	3.50
March	3.50	3.50	3.50	3.50
April	3.50	3.50	3.50	3.50
May	3.50	3.50	3.50	3.50
June	3.50	3.50	3.50	3.50
July	3.50	3.50	3.50	3.50
August	3.50	3.50	3.50	3.50
September	3.50	3.50	3.50	3.50
October	3.50	3.50	3.50	3.50
December	3.50	3.50	3.50	3.50
November	3.50	3.50	3.50	3.50
Year	3.50	3.50	3.50	3.50

Hypophosphites

On August 20, 1894, the price of lime potash and soda was $1.02½ to $1.10; October 18, 1901, lime, 58c. to 70c.; potash, 58c. to 70c.; soda, 58c. to 70c.; 1911, lime, 60c. to 64c.; potash, 65c. to 69c.; soda, 65c. to 69c.; 1913, lime, 54c. to 58c.; potash, 59c. to 63c.; soda, 59c. to 63c.; 1918, lime, August, $1; potash, 1917, August, $2.15; soda, 1917, $1.10.

1922

	Per pound— Lime. H.	L.	Potash. H.	L.	Soda. H.	L.
January	$0.65	$0.65	$0.85	$0.85	$0.75	$0.75
February	.65	.65	.85	.85	.75	.75
March	.65	.65	.85	.85	.75	.75
April	.65	.65	.85	.85	.75	.75
May	.65	.65	.85	.85	.75	.75
June	.65	.65	.85	.85	.75	.75
July	.65	.65	.85	.85	.75	.75
August	.65	.65	.85	.85	.75	.75
September	.65	.65	.85	.85	.75	.75
October	.65	.65	.85	.85	.75	.75
November	.65	.65	.85	.85	.75	.75
December	.65	.65	.85	.85	.75	.75
Year	.65	.65	.85	.85	.75	.75

1923

	Per pound— Lime. H.	L.	Potash. H.	L.	Soda. H.	L.
January	$0.65	$0.65	$0.85	$0.85	$0.75	$0.75
February	.65	.65	.85	.85	.75	.75
March	.65	.65	.85	.85	.75	.75
April	.65	.65	.85	.85	.75	.75
May	.65	.65	.85	.85	.75	.75
June	.65	.65	.85	.85	.75	.75
July	.65	.65	.85	.85	.75	.75
August	.65	.65	.85	.85	.75	.75
September	.65	.65	.85	.85	.75	.75
October	.65	.65	.85	.85	.75	.75
November	.60	.60	.80	.80	.70	.70
December	.60	.60	.80	.80	.70	.70
Year	.65	.60	.85	.80	.75	.70

Iodide, Potassium

On May 29, 1872, the price was $9; October 18, 1881, $2.10; 1891, $2.58 to $2.63; 1901, $2.05 to $2.10; 1911, $2.10 to $2.15; 1913, $2.95 to $3; 1917, November, $3.75.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.90	$2.85	$3.60	$3.60
February	3.15	2.85	3.75	3.75
March	3.15	3.15	3.75	3.75
April	3.15	3.15	3.75	3.75
May	3.30	3.15	3.75	3.75
June	3.30	3.30	3.75	3.75
July	3.30	3.30	3.75	3.75
August	3.30	3.30	3.75	3.75
September	3.45	3.45	3.75	3.75
October	3.45	3.45	3.75	3.75
November	3.45	3.45	3.75	3.75
December	3.60	3.45	3.75	3.75
Year	3.60	2.85	3.75	3.60

Iodine, Resublimed

On May 29, 1872, the price was $11; October 18, 1881, $3.25; 1891, $3.30 to $3.35; 1901, $2.70 to $2.75; 1911, $2.60 to $2.65; 1913, $3.55 to $3.60; 1919, August, $4.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$3.80	$3.80	$4.50	$4.50
February	4.05	3.80	4.55	4.50
March	4.05	4.05	4.55	4.55
April	4.05	4.05	4.55	4.55
May	4.20	4.05	4.55	4.55
June	4.20	4.20	4.55	4.55
July	4.20	4.20	4.55	4.55
August	4.20	4.20	4.55	4.55
September	4.40	4.40	4.55	4.55
October	4.40	4.40	4.55	4.55
November	4.40	4.40	4.55	4.55
December	4.50	4.40	4.55	4.55
Year	4.50	3.80	4.55	4.50

Magnesia, Carbonate, U. S. P.

On May 29, 1872, the price was 20c. to 32c.; October 18, 1881, 18c. to 19c.; 1911, 5¼c. to 6¾c.; 1913, 5½c. to 6c.; 1918, April, 25c.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.12	$0.12	$0.10¾	$0.10¼
February	.12	.12	.10¾	.10½
March	.12	.12	.10¾	.10½
April	.12	.12	.10¾	.10½
May	.12	.12	.10¾	.10½
June	.12	.12	.10¾	.10½
July	.12	.10½	.10¾	.10½
August	.10½	.10½	.11	.10½
September	.13	.13	.10¾	.10½
October	.13	.13	.10¾	.10½
November	.13	.13	.10¾	.10½
December	.10½	.10½	.10¼	.10½
Year	.13	.10½	.11	.10¼

Menthol

On April 23, 1884, the price was $8.50; October 18, 1891, $2.40 to $3.50; 1901, $4.25 to $4.50; 1911, $6; 1913, $4.10 to $4.25; 1920, January, $14.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$5.25	$5.25	$10.00	$8.00
February	5.25	5.25	8.25	8.00
March	6.25	5.25	8.25	8.25
April	6.25	6.25	8.25	7.75
May	6.25	6.65	7.75	7.75
June	5.50	5.40	10.00	7.75
July	6.25	6.00	9.90	9.70
August	6.25	6.25	9.65	9.50
September	6.25	6.15	19.50	9.50
October	8.00	6.25	16.50	14.25
November	10.00	7.00	15.00	14.00
December	10.50	10.00	12.75	10.00
Year	10.50	5.25	19.50	7.75

Twenty-nine Years' Prices

	H.	L.		H.	L.
1923	$19.50	$7.75	1908	$2.15	$1.85
1922	10.50	5.25	1907	2.60	1.90
1921	5.25	3.75	1906	2.90	2.15
1920	14.00	4.00	1905	3.00	1.75
1919	7.40	3.15	1904	6.25	2.50
1918	7.40	3.15	1903	8.00	5.25
1917	3.50	2.85	1902	7.00	3.80
1916	3.40	2.75	1901	4.75	3.50
1915	3.50	2.50	1900	3.90	2.35
1914	4.75	2.35	1899	3.00	1.20
1913	10.25	2.70	1898	2.60	2.00
1912	14.00	6.00	1897	4.20	1.85
1911	7.00	3.45	1896	4.75	2.50
1910	3.45	2.60	1895	4.75	4.00
1909	2.75	2.05			

Mercurials

Calomel

On June 5, 1872, the price was $1 to $1.35; October 18, 1881, 60c. to 95c.; 1891, 78c. to $1.10; 1901, 88c. to $1.10; 1911, 94c. to $1.10; 1913, 69c. to $1.02½; 1918, July, $2.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.82	$0.82	$1.25	$1.25
February	.88	.82	1.25	1.25
March	.88	.88	1.25	1.25
April	.88	.88	1.25	1.25
May	.94	.94	1.25	1.25
June	.94	.94	1.25	1.25
July	.94	.94	1.25	1.25
August	1.00	.94	1.25	1.25
September	1.15	1.00	1.25	1.25
October	1.15	1.15	1.25	1.25
November	1.15	1.15	1.25	1.25
December	1.25	1.15	1.25	1.25
Year	1.25	.82	1.25	1.25

Mercury, Bisulphate

On November 9, 1903, the price was 55c. to 57c.; October 18, 1911, 68c. to 70c.; 1913, 43c. to 47c.; 1918, July, $1.58.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.39	$0.39	$0.86	$0.86
February	.49	.39	.86	.86
March	.49	.49	.86	.86
April	.49	.49	.86	.86
May	.55	.55	.86	.86
June	.55	.55	.86	.86
July	.55	.55	.86	.86
August	.61	.55	.86	.86
September	.76	.61	.86	.86
October	.76	.76	.86	.86
November	.76	.76	.86	.86
December	.86	.76	.86	.86
Year	.86	.39	.86	.86

Mercury, Red Precipitate

On Novebmer 22, 1871, the price was $1 to $1.05; October 21, 1885, 70c.; 1891, 91c. to 94c.; 1901, 96c. to 98c.; 1911, $1.04 to $1.14; 1918, 79c. to 89c.; 1918, July, $2.19.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.91	$0.91	$1.38	$1.38
February	.97	.91	1.38	1.38
March	.97	.97	1.38	1.38
April	.97	.97	1.38	1.38
May	1.03	1.03	1.38	1.38
June	1.03	1.03	1.38	1.38
July	1.03	1.03	1.38	1.38
August	1.10	1.03	1.38	1.38
September	1.28	1.10	1.38	1.38
October	1.28	1.28	1.38	1.38
November	1.28	1.28	1.38	1.38
December	1.38	1.28	1.38	1.38
Year	1.38	.91	1.38	1.38

Mercury, White Precipitate

On August 1, 1877, the price was 90c.; October 21, 1885, 75c.; 1891, 96c. to $1; 1901, $1.01 to $1.03; 1911, $1.09 to $1.14; 1913, 84c. to 89c.; 1918, July, $2.29.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.06	$1.06	$1.49	$1.49
February	1.12	1.06	1.49	1.49
March	1.12	1.12	1.49	1.49
April	1.12	1.12	1.49	1.49
May	1.18	1.18	1.49	1.49
June	1.18	1.18	1.49	1.49
July	1.18	1.18	1.49	1.49
August	1.20	1.18	1.49	1.49
September	1.39	1.20	1.49	1.49
October	1.39	1.39	1.49	1.49
November	1.39	1.39	1.49	1.49
December	1.49	1.39	1.49	1.49
Year	1.49	1.06	1.49	1.49

Blue Mass, U. S. P.

On June 5, 1872, the price was $1 to $1.10; March 2, 1896, 33c. to 84c.; October 18, 1901, 41c. to 42c.; 1911, 46c. to 48c.; 1913, 42c. to 44c.; 1918, July, 95c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.56	$0.56	$0.62	$0.62
February	.56	.56	.62	.62
March	.56	.56	.62	.62
April	.56	.56	.62	.62
May	.56	.56	.62	.62
June	.56	.56	.62	.62
July	.56	.56	.62	.62
August	.56	.56	.62	.62
September	.62	.56	.62	.62
October	.62	.62	.62	.62
November	.62	.62	.62	.62
December	.62	.62	.62	.62
Year	.62	.56	.62	.62

Mercurial Ointment, 33 1-3 Percent

On August 1, 1877, the price was 40c. to 50c.; October 21, 1907, 30c. to 32c.; 1911, 42c. to 44c.; 1913, 38c. to 40c.; 1918, July, 93c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.59	$0.59	$0.59	$0.59
February	.59	.59	.59	.59
March	.59	.59	.59	.59
April	.59	.59	.59	.59
May	.59	.59	.59	.59
June	.59	.59	.59	.59
July	.59	.59	.59	.59
August	.59	.59	.59	.59
September	.59	.59	.59	.59
October	.59	.59	.59	.59
November	.59	.59	.59	.59
December	.59	.59	.59	.59
Year	.59	.59	.59	.59

Mercurial Ointment, 50 Percent

On October 21, 1907, the price was 40c. to 42c.; 1911, 52c to 54c.; 1913, 48c. to 50c.; 1918, July, $1.30.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.72	$0.72	$0.80	$0.80
February	.72	.72	.80	.80
March	.72	.72	.80	.80
April	.72	.72	.80	.80
May	.72	.72	.80	.80
June	.72	.72	.80	.80
July	.72	.72	.80	.80
August	.72	.72	.80	.80
September	.80	.72	.80	.80
October	.80	.80	.80	.80
November	.80	.80	.80	.80
December	.80	.80	.80	.80
Year	.80	.72	.80	.80

Musk, Cabardine, Grained

On May 29, 1872, the price was 50c.; October 18, 1881, $18 to $26; 1891, $11 to $32; 1901, $9 to $10; 1911, $12 to $15; 1913, $12 to $15; 1919, December, $28.

	Per ounce			
	1922.		1923.	
	H.	L.	H.	L.
January	$28.00	$28.00	$25.00	$25.00
February	28.00	28.00	25.00	25.00
March	28.00	28.00	25.00	25.00
April	26.00	26.00	25.00	25.00
May	26.00	25.00	25.00	25.00
June	25.00	25.00	25.00	25.00
July	25.00	25.00	25.00	25.00
August	25.00	25.00	25.00	25.00
September	25.00	25.00	25.00	25.00
October	25.00	25.00	25.00	25.00
November	25.00	25.00	25.00	25.00
December	25.00	25.00	25.00	25.00
Year	28.00	25.00	25.00	25.00

Opium and Derivatives

Opium Gum

On October 18, 1871, the price was $4; 1881, $3 to $3.12; 1891, $1.80 to $1.90; 1901, $3.12 to $3.19; 1911, $8; 1913, $5.75 to $5.90; 1917, May, $30.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$5.50	$5.50	$6.75	$6.75
February	5.75	5.50	6.75	6.75
March	5.75	5.75	6.75	6.75
April	5.75	5.75	6.75	6.75
May	6.00	5.75	7.00	6.75
June	6.00	6.00	8.00	7.00
July	6.00	6.00	8.00	8.00
August	6.00	6.00	8.00	8.00
September	6.75	6.25	8.00	8.00
October	6.75	6.75	8.00	8.00
November	6.75	6.75	8.00	8.00
December	6.75	6.75	8.00	8.00
Year	6.75	5.50	8.00	6.75

Crops and Prices Since 1870

The following table shows the opium crops and the high and low prices for cases on spot since 1870:—

Year.	Crop, cases.	Prices H.	Prices L.
1923	....	$8.00	$6.75
1922	1,100	6.75	5.50
1921	1,500	7.50	5.50
1920	*	....	....
1919	*	22.50	6.75
1918	*	30.00	21.50
1917	*	30.00	13.50
1916	*	13.50	10.75
1915	7,500	11.00	6.90
1914	7,500	10.00	6.00
1913	8,500	6.60	5.60
1912	6,500	8.50	6.00
1911	10,500	8.50	4.70
1910	4,800	6.00	4.80
1909	4,800	6.00	4.00
1908	4,650	5.75	4.05
1907	3,000	7.00	3.45
1906	7,500	3.50	2.72½
1905	3,700	3.30	2.72½
1904	11,200	2.95	2.62½
1903	3,200	3.50	2.70
1902	10,000	3.05	2.70
1901	5,600	3.45	3.00
1900	8,200	3.45	3.00
1899	6,400	3.37½	2.80
1898	3,000	3.75	2.70
1897	7,000	2.85	1.95
1896	3,600	2.40	1.90
1895	7,500	2.30	1.60
1894	4,500	3.25	1.85
1893	2,845	3.15	1.77½
1892	7,500	1.90	1.50
1891	7,400	2.25	1.75
1890	5,300	3.85	2.00
1889	5,500	3.40	2.82½
1888	8,700	3.87½	2.65
1887	7,800	4.60	3.25
1886	7,500	3.25	2.80
1885	7,000	3.90	3.30
1884	5,000	4.10	3.50
1883	6,500	4.12½	3.50
1882	5,500	4.50	3.87½
1881	10,000	6.25	3.90
1880	2,000	7.75	4.87½
1879	4,000	5.25	4.35
1878	5,500	4.70	4.25
1877	9,500	6.70	4.75
1876	3,280	6.60	4.75
1875	6,489	7.75	5.00
1874	2,300	9.00	5.00
1873	3,200	7.90	5.95
1872	4,500	7.90	6.10
1871	7,961	6.00	4.90
1870	4,273	9.40	5.25

* Due to the conditions brought about by the European war, no statistics or even estimates of the crop of gum opium were available for 1916, 1917, 1918, 1919 or 1920.

Opium, Granular

On November 22, 1871, the price was $7.40 to $7.50; October 18, 1881, $5.50; 1891, $2.80 to $2.85; 1901, $4 to $4.10; 1911, $8.65 to $8.75; 1913, $7.35 to $7.40; 1917, April, $33.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$6.50	$6.50	$7.75	$7.75
February	6.75	6.50	7.75	7.75
March	6.75	6.75	7.75	7.75
April	6.75	6.75	7.75	7.75
May	7.00	6.75	8.00	7.75
June	7.00	7.00	9.00	8.00
July	7.00	7.00	9.00	9.00
August	7.00	7.00	9.00	9.00
September	7.75	7.25	9.00	9.00
October	7.75	7.75	9.00	9.00
November	7.75	7.75	9.00	9.00
December	7.75	7.75	9.00	9.00
Year	7.75	6.50	9.00	7.75

Opium, Powdered

On November 22, 1871, the price was $7.40 to $7.50; October 18, 1881, $5.50; 1891, $2.80 to $2.85; 1901, $4 to $4.10; 1911, $8.65 to $8.75; 1913, $7.30 to $7.35; 1917, April, $33.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$6.50	$6.50	$7.75	$7.75
February	6.75	6.75	7.75	7.75
March	6.75	6.75	7.75	7.75
April	6.75	6.75	7.75	7.75
May	7.00	6.75	8.00	7.75
June	7.00	7.00	9.00	8.00
July	7.00	7.00	9.00	9.00
August	7.00	7.00	9.00	9.00
September	7.75	7.25	9.00	9.00
October	7.75	7.75	9.00	9.00
November	7.75	7.75	9.00	9.00
December	7.75	7.75	9.00	9.00
Year	7.75	6.50	9.00	7.75

Codeine, Sulphate

On December 20, 1897, the price was $3.95; October 18, 1901, $4.20 to $4.50; 1911, $5.40 to $5.55; 1913, $5 to $5.15; 1917, February, $11.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.80	$4.80	$5.85	$5.85
February	4.80	4.80	5.85	5.85
March	4.80	4.80	5.85	5.85
April	4.80	4.80	5.85	5.85
May	4.80	4.80	5.85	5.85
June	4.80	4.80	6.80	5.85
July	4.80	4.80	6.80	6.80
August	4.80	4.80	6.80	6.80
September	5.85	5.85	6.80	6.80
October	5.85	5.85	6.80	6.80
November	5.85	5.85	6.80	6.80
December	5.85	5.85	6.80	6.80
Year	5.85	4.80	6.80	5.85

Morphine, Sulphate

On October 18, 1871, the price was $4.80; 1881, $3.65 to $3.75; 1891, $1.80 to $2.10; 1901, $1.70 to $1.85; 1911, $4.20 to $4.30; 1913, $4.20 to $4.30; 1917, October, $13.80.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.90	$4.90	$5.35	$5.35
February	4.90	4.90	5.35	5.35
March	4.90	4.90	5.35	5.35
April	4.90	4.90	5.35	5.35
May	4.90	4.90	5.35	5.35
June	4.90	4.90	6.30	5.35
July	4.90	4.90	6.30	6.30
August	4.90	4.90	6.30	6.30
September	5.35	5.35	6.30	6.30
October	5.35	5.35	6.30	6.30
November	5.35	5.35	6.30	6.30
December	5.35	5.35	6.30	6.30
Year	5.35	4.90	6.30	5.35

Potassium Permanganate, U. S. P.

On October 18, 1901, the price was 9c. to 11c.; 1911, 9¾c. to 10¾c.; 1913, 9¾c. to 10c.; 1917, July, $4.10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.16	$0.14	$0.16½	$0.15¾
February	.16	.16	.19	.17
March	.16	.14	.23	.19½
April	.14	.14	.27	.23
May	.14	.13	.23	.20
June	.14¾	.14¾	.19	.17
July	.14¾	.14¾	.17	.16
August	.14¾	.14¾	.18	.17
September	.16	.14	.18	.18
October	.17	.16	.18	.18
November	.16	.15	.18	.17
December	.15	.15	.16	.16
Year	.17	.13	.27	.15¾

Quicksilver

On October 18, 1871, the price was $63; 1881, $34; 1891, $46.50 to $48; 1901, $49.88 to $51; 1911, $47.25; 1913, $40.50; 1917, February, $140.

	Per flask of 75 pounds			
	1922.		1923.	
	H.	L.	H.	L.
January	$52.00	$48.00	$74.00	$72.00
February	51.00	48.00	70.00	69.00
March	50.00	49.00	75.00	68.50
April	55.00	49.00	70.00	68.00
May	55.00	55.00	68.00	67.00
June	55.00	55.00	67.00	67.00
July	55.00	55.00	67.00	66.00
August	60.00	57.00	65.00	60.00
September	69.00	63.00	61.00	60.00
October	72.00	71.00	61.00	60.00
November	72.00	71.00	61.00	60.00
December	74.00	70.00	60.00	60.00
Year	74.00	48.00	75.00	60.00

Quinine, Sulphate, American, Manufacturer's

On October 18, 1871, the price was $2.50; 1881, $1.85 to $1.90; 1891, 24c. to 25c.; 1901, 28c.; 1911, 14c.; 1913, 23c. to 28c.; 1918, May, 90c.

	Per ounce			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.60	$0.50	$0.50
February	.60	.60	.50	.50
March	.60	.60	.50	.50
April	.60	.60	.50	.50
May	.60	.60	.50	.50
June	.60	.50	.50	.50
July	.50	.50	.50	.50
August	.50	.50	.50	.50
September	.50	.50	.50	.50
October	.50	.50	.50	.50
November	.50	.50	.50	.50
December	.50	.50	.50	.50
Year	.60	.50	.50	.50

Thirty-eight Years' Prices

	H.	L.
1923	$0.50	$0.50
1922	.60	.50
1921	.70	.60
1920	.90	.70
1919	.90	.80
1918	.90	.75
1917	.75	.55
1916	.75	.50
1915	.75	.26
1914	.31	.26
1913	.26	.19½
1912	.19½	.14
1911	.14	.14
1910	.14	.14
1909	.15	.14
1908	.16	.15
1907	.22	.16
1906	.19	.14½
1905	.23	.19
1904	.27	.21
1903	.28	.23
1902	.28	.20
1901	.34	.27
1900	.37	.29
1899	.40	.21
1898	.25	.18
1897	.30	.15
1896	.27	.17½
1895	.28	.25
1894	.27½	.25⅓
1893	.25	.20
1892	.24	.20
1891	.30	.24
1890	.37	.32
1889	.40	.32
1888	.49	.40
1887	.61	.35
1886	.73	.49

Note.—Prices for bulk quinine salts based on sulphate for the years cited.

Quinine, Sulphate, Dutch

On November 18, 1901, the price was 26½c.; October 18, 1911, 13¼c. to 13¾c.; 1913, 21c. to 22c.; 1919, October, $1.60.

	Per ounce			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.59	$0.50	$0.50
February	.59	.58½	.50	.50
March	.58½	.58	.50	.50
April	.58½	.58½	.50	.50
May	.59	.58½	.50	.50
June	.59	.50	.50	.50
July	.50	.50	.50	.50
August	.50	.50	.50	.50
September	.50	.50	.50	.50
October	.50	.50	.50	.50
November	.50	.50	.50	.50
December	.50	.50	.50	.50
Year	.60	.50	.50	.50

Rochelle Salt

On October 18, 1881, the price was 25c.; 1891, 25c.; 1901, 16¼c. to 17½c.; 1911, 19c. to 19½c.; 1913, 18c. to 18½c.; 1918, August, 46½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.19	$0.18	$0.19½	$0.19½
February	.18	.18	.19½	.19½
March	.18	.18	.20	.19½
April	.18	.18	.21	.21
May	.18	.16½	.21	.21
June	.18	.18	.21	.21
July	.18	.18	.21	.21
August	.18	.18	.21	.21
September	.19	.18	.21	.21
October	.19	.19½	.21	.21
November	.19½	.19½	.21	.21
December	.19½	.19½	.21	.21
Year	.19½	.16½	.21	.19½

Saccharine, Soluble

On December 11, 1905, the price was $1.50 to $1.75; October 18, 1911, $1.25 to $1.50; 1913, $1.25 to $1.50; 1917, August, $42.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.00	$1.90	$1.85	$1.85
February	1.90	1.90	1.85	1.85
March	1.90	1.90	1.85	1.85
April	1.90	1.90	1.85	1.85
May	1.90	1.90	1.85	1.85
June	1.90	1.90	1.85	1.85
July	1.90	1.85	1.85	1.85
August	1.85	1.85	1.85	1.85
September	1.85	1.85	1.85	1.85
October	1.85	1.85	1.85	1.85
November	1.85	1.85	1.85	1.85
December	1.85	1.85	1.85	1.85
Year	2.00	1.85	1.85	1.85

Salol

On August 20, 1894, the price was $3.05 to $3.10; October 18, 1901, $1.25 to $1.50; 1911, 85c. to 90c.; 1913, 55c. to 57½c.; 1917, January, $2.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.80	$0.75	$0.90	$0.90
February	.80	.80	.90	.90
March	.80	.80	.90	.90
April	.80	.80	.90	.85
May	.80	.80	.85	.85
June	.80	.80	.85	.85
July	.80	.80	.85	.85
August	.80	.80	.85	.80
September	.80	.80	.80	.80
October	.85	.80	.80	.80
November	.90	.85	.80	.80
December	.90	.90	.80	.80
Year	.90	.75	.90	.80

Santonin, Crystals

On May 29 1872, the price was $11 to $12; October 18, 1901, $5.25 to $5.50; 1911, $14.40 to $14.65; 1913, $26 to $26.50; 1920, May, $175.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$147.00	$147.00	$175.00	$172.00
February	147.00	147.00	175.00	175.00
March	147.00	147.00	175.00	175.00
April	167.00	167.00	175.00	175.00
May	167.00	167.00	175.00	175.00
June	167.00	167.00	175.00	174.00
July	167.00	167.00	174.00	174.00
August	167.00	167.00	174.00	174.00
September	172.00	167.00	150.00	150.00
October	172.00	167.00	150.00	150.00
November	172.00	172.00	150.00	150.00
December	172.00	172.00	150.00	148.00
Year	172.00	147.00	175.00	148.00

Seidlitz Mixture

On July 14, 1875, the price was 27c. to 28c.; October 18, 1881, 23c.; 1891, 20c.; 1901, 13½c. to 14¼c.; 1911, 15½c. to 16c.; 1913, 14½c. to 15c.; 1918, August, 36c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.18½	$0.17	$0.17	$0.17
February	.17	.17	.17	.17
March	.17	.17	.17	.17
April	.17	.17	.17	.17
May	.17	.17	.17	.17
June	.17	.17	.17	.17
July	.17	.17	.17	.17
August	.17	.17	.17	.17
September	.17	.17	.17	.17
October	.17	.17	.17	.17
November	.17	.17	.17	.17
December	.17	.17	.17	.17
Year	.18½	.17	.17	.17

Sodium Benzoate

On October 18, 1901, the price was 44c. to 46c.; 1911, 26c. to 28c.; 1913, 23¾c. to 24c.; 1917, January, $8.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.52	$0.52	$0.65	$0.65
February	.52	.52	.65	.65
March	.52	.52	.65	.65
April	.52	.50	.65	.65
May	.50	.50	.65	.65
June	.50	.50	.65	.65
July	.50	.50	.65	.65
August	.57	.55	.65	.55
September	.57	.55	.65	.65
October	.60	.57	.65	.65
November	.60	.57	.65	.65
December	.65	.57	.65	.65
Year	.65	.50	.65	.65

Strychnine, Alkaloid, Crystals

On May 29, 1872, the price was $2.75 to $3; October 18, 1921, $1.05 to $1.15; 1901, 55c. to 80c.; 1911, 55c. to 60c.; 1913, 50c. to 60c.; 1920, April, $1.95.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.35	$1.10	$1.15	$1.15
February	1.20	1.20	1.15	1.15
March	1.20	1.05	1.15	1.15
April	1.05	1.05	1.15	1.15
May	1.05	1.05	1.15	1.15
June	1.05	1.05	1.15	1.15
July	1.05	1.05	1.15	1.15
August	1.05	1.05	1.15	1.15
September	1.05	1.05	1.15	1.15
October	1.15	1.15	1.00	1.00
November	1.15	1.15	1.60	.95
December	1.15	1.15	.95	.95
Year	1.35	1.05	1.15	.95

Sugar of Milk

On May 29, 1872, the price was 40c. to 50c.; October 18, 1881, 28c. to 31c.; 1891, 26c. to 28c.; 1901, 13c. to 16c.; 1911, 15c. to 20c.; 1913, 16c. to 17c.; 1919, January, 60c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.17	$0.17	$0.21	$0.21
February	.17	.17	.21	.21
March	.17	.17	.21	.21
April	.17	.17	.21	.21
May	.21	.17	.21	.21
June	.21	.18	.21	.21
July	.18	.18	.21	.21
August	.19	.18	.21	.21
September	.19	.19	.21	.21
October	.19	.19	.21	.21
November	.21	.19	.21	.21
December	.21	.20	.21	.21
Year	.21	.17	.21	.21

Tartar Emetic, Technical, Crystals

On May 29, 1872, the price was $1; October 18, 1911, 23¼c. to 25c.; 1913, 22½c. to 23c.; 1917, November, 67c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.31	$0.31	$0.28	$0.28
February	.31	.31	.28	.28
March	.31	.31	.28	.28
April	.31	.31	.28	.28
May	.31	.31	.28	.28
June	.31	.31	.28	.28
July	.31	.31	.28	.28
August	.31	.31	.28	.28
September	.29	.28	.28	.28
October	.28	.28	.28	.28
November	.28	.28	.28	.28
December	.28	.28	.28	.28
Year	.31	.28	.28	.28

Thymol

On January 20, 1896, the price was $2; October 18, 1901, $3.15 to $3.25; 1911, $1.25 to $1.35; 1913, $1.05 to $1.70; 1917, November, $17.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.75	$4.70	$4.00	$4.00
February	4.30	4.30	3.70	3.70
March	4.30	4.30	3.70	3.00
April	4.25	4.25	3.00	3.00
May	4.25	4.25	3.00	3.00
June	4.40	4.25	3.00	3.00
July	4.45	4.40	3.25	3.00
August	4.45	4.45	3.25	3.00
September	4.45	3.90	3.00	3.00
October	4.25	4.15	3.00	3.00
November	4.00	4.00	3.00	3.00
December	4.00	4.00	3.00	3.00
Year	4.75	3.90	4.00	3.00

Vanillin

On October 19, 1890, the price was $3.75 to $4; 1901, 70c. to $1; 1911, 33c. to 36c.; 1913, 33c. to 36c.; 1918, August, 90c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.58	$0.54	$0.43	$0.43
February	.54	.54	.43	.41
March	.54	.54	.41	.41
April	.54	.54	.41	.41
May	.54	.54	.40	.40
June	.54	.48	.40	.40
July	.48	.43	.40	.40
August	.43	.43	.40	.40
September	.43	.43	.40	.40
October	.43	.43	.40	.39
November	.43	.43	.48	.45
December	.43	.43	.48	.45
Year	.58	.43	.48	.39

Codliver Oil Refining Slack in Newfoundland

ST. JOHN'S, N. F., Feb. 18, 1924.

The quantity of codliver oil manufactured in Newfoundland during the past season was very small. Refiners could not afford to pay the price demanded by the fishermen for livers in competition with offers from Boston and New York tanners for common cod oil.

Statistics, compiled by the Board of Trade, give the following figures for exports from Newfoundland of refined medicinal oil and common oil for industrial purposes, the records being for fiscal years ended June 30:—

	Gallons	
Year.	Refined Cod Liver Oil.	Common Cod Oil.
1918	331,969	1,881,600
1919	342,592	1,156,100
1920	291,351	1,275,500
1921	45,956	751,600
1922	48,956	1,494,300
1923	50,962	1,320,700

This comparison will show the possibility of increasing the quantity of refined oil manufactured in this country when the price of the medicinal oil warrants it.

The following statistics show the actual production in Norway during the same years, where almost all the livers of the codfish, haddock, and ling are manufactured into refined oil for medicinal purposes:—

Year.	Catch of Codfish.	Gallons of Oil.
1919	30,000,000	940,360
1920	38,000,000	973,770
1921	39,000,000	944,700
1922	47,000,000	1,984,845
1923	51,600,000	2,128,525

During the past two years Norway has manufactured enormous quantities of refined oil, which have exceeded all previous records, and the competition of selling has driven the price of oil below the cost of production. The reason of the very small quantity produced in Newfoundland during recent years is that the codfishery here does not commence until after the Norway fishery is over, so that our refiners are in a position to judge whether the business will be remunerative and, if not, they turn their attention to other work.

During the recent past the tanners of the New England States have been paying relatively more money for Newfoundland cod oil than the drug trade of New York and England was paying for the refined medicinal codliver oil. While these conditions continue, it is useless to ask a refiner to manufacture oil.

The result of the scientific investigation carried out by Dr. J. C. Drummond, of the London University, and Dr. S. S. Zilva, of the Lister Institute, has proved that Newfoundland codliver oil is very rich in vitamines. A further result of Dr. Zilva's investigation here in 1922, has confirmed the belief that codliver oil manufactured from the livers of fish after the spawning season has ended, and the fish have had the opportunity to recuperate with an abundant supply of food, is very much superior to oil manufactured during the winter months. Attention drawn to these facts has started many experiments, and authorities who visited here this past summer have arrived at conclusive results, which it is hoped will lead to a greater demand for Newfoundland oil in the near future.

The government has seen the wisdom of repealing all export taxes on fish. Undoubtedly these export taxes were economically unsound. Unfortunately, the export tax still remains on codliver oils and common cod oils. It is the opinion of the Board of Trade that this tax should forthwith be removed also.

An extra good demand for common cod oil has been experienced, both from the English market and the New England States. The quality of the Newfoundland cod oil, which is made wholly from the livers of codfish, is considered superior to that obtainable elsewhere, as in the latter case the livers of haddock, hake, ling, and pollock are all utilized. With the English and American tanners both bidding for Newfoundland cod oil, the prices obtainable are fairly good.

Cod Liver Oil Output Near Record in Norway

BERGEN, Feb. 20, 1924.

The 1923 production of medicinal cod liver oil was one of the largest crops ever recorded. Exports by the end of December reached 88,406 barrels. The advance in prices during the year, which took place on home markets, was, to a great extent, offset by the depreciation in the value of Norwegian currency.

Of the quantity exported, it is estimated that about 25,000 barrels have been used for industrial purposes abroad, and the rest by the regular trade. Stocks abroad are not large, rather the contrary. The big consumption shows an increase in the use of cod liver oil due to a better understanding of its medicinal virtues.

The new codfishing has just begun, and the first information just received from the Lofoten district is encouraging as regards the fatness of the cod livers. It is, however, too early to predict anything as the livers may turn out leaner later on, and the catch of fish depends so much on favorable weather. So far it is a little behind last year.

Prices of oil have lately receded as a result of selling by some industrial concerns which are said to have been interested in getting lower prices in view of the approaching fishing season. The concerns in question are expected to be large buyers of crude oil and to pay a higher price than was paid last year. The better part of the coming whale oil production of this season has already been secured by the same concerns at £35 per ton in bulk. For the remainder of the whale oil production £40 per ton has been asked.

The 1923 total catch of fish and production of crude oil in Lofoten and in all fishing districts of Norway combined compared with pervious years follows:—

LOFOTEN

	Total catch.	Barrels.
1923	17,000,000	30,431
1922	12,900,000	23,835
1921	18,600,000	25,240
1920	12,160,000	15,840

ALL FISHERIES

	Total catch.	Barrels.
1923	51,600,000	73,340
1922	47,900,000	68,374
1921	39,000,000	49,740
1920	38,800,000	50,820

In 1919 the total production in all fisheries was 32,420 barreils, and in 1918, 18,530 barrels.

The figures below are the totals of the production of steam-refined oil:—

	Barrels.
1923	73,340
1922	68,374
1921	49,740
1920	50,820
1919	32,420
1918	18,530

Domestic Botanicals Likely to Be Scarce

Production of wild, golden seal root becomes, each year, more limited, on account of the disappearance of forests and increased cultivation of farms. On the other hand, the production of cultivated golden seal seems about to have reached its maximum, as the low price for the last two years has discouraged farmers from increasing their acreage in this article. While the consumption in this country is about the same as usual, there has been less demand from European countries, on account of bad financial conditions existing there. When these are lifted, it will have a beneficial effect on the price of golden seal root.

The yield of mandrake last year was about the same as usual, but there was much less wahoo and slippery elm gathered. This is due to the fact that farmers have found labor hard to secure, except at high prices, on account of the demand in cities, and have paid less attention than usual to gathering crude drugs. In addition, high prices and prosperity have produced extravagance on the farm as well as in the city, and many farmers and farm laborers who formerly put in their extra time digging roots and stripping bark, have found it "beneath their dignity" to engage in such work, and put in their time riding around in automobiles. This has made a scarcity of many crude drugs.

Consumers during the latter months of the year purchased crude drugs only in limited quantities, with the hope of beating down the price. This purpose will be practically impossible as long as such extravagance prevails all over the land, and labor receives such high wages in the city.

Senna Exports from the Sudan

Year.	Tons.
1913	810
1914	309
1915	691
1916	434
1917	755
1918	521
1919	524
1920	302
1921	194
1922	435
1923	793

Eleven-year average, 524 tons.

Peppermint Oil Yield Was Not Good in 1923

COLON, Mich., Feb. 27, 1924.

In January, 1923, peppermint was in a pretty strong position, but as the year advanced toward June, the forced selling of oils held in the West gradually broke the prices down until in June they were around $2.40.

The peppermint roots in the spring of 1923, looked early as though they had wintered right, but there was a very dry spell toward the last of April and in May, and these roots which had looked as though they would produce a crop (those in the fields over one year old) seemed gradually to die out, and a field that looked good for a crop would just simply die out. This happened to a large portion of the 1923 crop. But in these poor fields were patches of mint which, due to the weakened condition of the roots, the growers were afraid to work properly; therefore, the mint fields in 1923 were the foulest seen in a long time. As the largest proportion of the crop consisted of this weedy mint, the dealers were forced to buy the oil even though they knew the quality was not what it should be as to odor.

In August, everyone began to get wise that all was not well with the peppermint crop, and there was a scramble to buy oil early, because the price was still down. the grower, with his small yield, could not help but notice the anxiety of the dealer to buy his oil, and naturally he tightened up and refused to sell. A very small portion of the oil was sold early, and as a consequence there were no very cheap stocks accumulated. However, when the market got close to $3, growers let loose; so that in October, prices were again down around $2.60, but they were on the advance ever since the first of November. Today, growers are getting nearly $3.50 per pound; western dealers are offered $3.55, and eastern dealers are selling consumers at the same price. Such a condition, with grower, dealer and consumer prices the same, is most unusual. It is not supposed this condition will continue, because at this time there is only 10,000 pounds in sight, with the grower, and the healthy up market, which has always shown dealers a profit, has not been one that would tend to the accumulation of large stocks, because when one has a good profit, it is quite a temptation to take that profit.

The actual acreage for 1923 is hard to determine because it was killed out and spotted, but a conservative estimate places it at around 19,000 acres and the average yield below 15 pounds per acre. This would place the crop yield between 250,000 and 300,000 pounds. One man's guess is about as good as another's on this.

Another large factor in the high prices for peppermint oil was the Japanese earthquake, which sent the price of menthol up around $15 per pound. The American crop of peppermint happened to be extra high in menthol, some of the oil testing around 67 percent, and users of menthol may have found that domestic oil of peppermint where high in menthol could be used to advantage. If this is so, the increased consumption of the oil going into other channels may have the same effect as a much shorter crop. Weedy mint is usually high in menthol.

Growers in the West usually figure that a fair price for peppermint is the amount that their labor costs per day for one man. If that condition had ruled, oil would have been from $3.50 to $4 per pound. Already there is talk of carrying the oil that is left here into the 1924 crop. Holders of oil contend that many of the mint fields are giving out and losing their fertility, because of overcropping, and not many new plantations (large ones) are coming in lately. If another short crop were to follow this year, conditions would again be like 1919 and 1920.

Peppermint is some gamble and what is thought high today, is low tomorrow. However, the natural trend of peppermint from now until the next crop should be steadily upward, because with this hand to mouth policy, there will be a steady market every month for peppermint oil and with six months to go and exceedingly small stocks, the best bet is it will not go down.

Calcutta Shellac Trade

The tables below show shipments of shellac from Calcutta during 1923, according to the ports of destination and the shippers. The quantities are packages of 164 pounds each.

Destination.	Orange.	Garnet.	Button.
Great Britain—			
London	59,862	2,961	3,602
Liverpool	5	....	9
Glasgow	178	....	....
Manchester	1,320	50	388
Germany—			
Hamburg	10,826	255	99
Bremen	1,355	30	95
Cologne	....	....	....
France—			
Marseilles	2,813	155	268
Dunkirk	6,178	1,695	1,020
Spain—			
Barcelona	287	....	....
Italy—			
Genoa	2,920	....	166
Naples	80	....	....
Venice	75	....	....
Trieste	550	....	....
Belgium—			
Antwerp	667	190	....
Holland—			
Rotterdam	131	6	11
Amsterdam	35	....	....
Other European ports—			
Gothenburg	350	....	....
Christiania	220	....	....
Copenhagen	425	....	16
Malmo	30	....	....
Stockholm	325	....	1
Other ports	13	....	....
North and South America—			
New York	119,329	7,996	2,197
Boston	10,690	975	389
San Francisco	1,335	....	....
Philadelphia	45,153	....	450
New Orleans	....	....	....
Los Angeles	485	....	....
Halifax	....	....	....
London, Ont.	....	....	....
Montreal	280	....	....
Toronto	....	....	....
Vancouver	18	....	....
Montevideo	25	....	....
Buenos Aires	1,385	....	30
Santos	291	....	32
Antofagasta	....	....	....
Valparaiso	97	....	....
Other ports	467	....	30
Japan—			
Kobe	5,102	....	20
Osaka	125	....	....
Yokohama	3,230	200	10
Moji	....	....	....
Tokio	....	....	....
All other ports—			
China	1,588	2	....
Straits	792	....	....
Java	514	....	....
Mauritius	....	....	....
New Zealand	412	....	19
Australia	2,289	....	202
Egypt	467	....	....
Colombo	14	....	1
Cape Colonies	185	....	9
Total	282,918	14,515	9,064
Same period 1922	225,717	1,368	8,778

Shippers.	
Ralli Brothers	75,210
Rogers-Pyatt Shellac Co.	62,413
Max Staub, Ltd.	38,602
Lyall Marshall Co.	30,776
Turner M. & Co., Ltd.	16,282
E. D. Sassoon & Co.	12,705
J. C. Galstaun	12,314
A. M. Arathoon	10,690
Calcutta Traders, Ltd.	10,073
Mitsui Bussan Kaisha, Ltd.	7,174
Becker, Gray & Co., Ltd.	5,645
Stoll, Earl & Co., Ltd.	5,129
Senda & Co., Ltd.	3,569
The Gramophone Co., Ltd.	2,200
M. C. Gregory	1,262
M. M. Ispahani & Son	986
Bird & Co.	943
Gladstone, Wyllie & Co.	870
Birla Brothers & Co., Ltd.	730
Cossentelli Brothers	724
J. Nahapiet & Co.	522
Harrison & Est. Expt., Ltd.	465
Asano Bussan & Co., Ltd.	380
Johannes & Co.	372
R. K. Modi	331
E. Meyer & Co., Ltd.	272
Galestin Brothers	225
Walker, Goward & Co.	214
T. J. C. Davis & Co.	174
M. G. Martin & Co.	131
The Chittagonge Co., Ltd.	111
Dawn & Co.	110
B. Dieden & Co., Ltd.	75
I. Trade Developer	75
Orient Trading Co.	40
Andrew Yule Co., Ltd.	30
Sundry shippers	4,604
Total	306,497
Same period 1922	245,863

Pyrethrum Exports From Japan

The following table, sent to the Department of Commerce by Consul E. R. Dickover, Kobe, gives a comparison of recent exports of insect flowers from Japan:

Years.	Pounds.	Yen.
1920	2,926,598	2,553,695
1921	1,127,687	551,549
1922	3,983,083	3,357,188
1923*	1,346,743	1,358,024

* First five months.

The preceding figures indicate that while there has been considereble fluctuation in the quantities of this flower exported since 1920, the value is fairly consistent with the quantities, except for 1921. However, this can be accounted for by reason of the prices at the farms decreasing from 70 to 75 cents per pound in March, 1920, to 20 cents per pound in March, 1921, due to the reappearance of the Dalmatian flower on the market.

Gum Arabic Exports from the Sudan, 1912-1923

Destination.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
	Tons											
United States	2,707	2,069	2,301	1,815	1,011	701	682	1,698	2,369	2,825	3,411	4,736
Great Britain	3,881	2,721	2,603	4,826	7,323	7,431	5,954	7,764	6,442	4,163	2,988	5,227
Egypt	3,190	889	456	856	741	7,761	8,916	4,308	716	68	135	85
France	3,020	3,506	2,924	3,308	3,638	154	...	519	1,336	747	2,765	5,434
Italy	431	415	297	316	132	439	...	...	218	409	832	1,404
Belgium	1,206	1,096	808	...	...	...	...	...	15	582	738	927
Germany	3,661	2,844	2,034	...	...	...	...	...	94	1,056	1,930	2,147
Other countries	1,519	1,589	949	485	635	127	797	1,201	919	1,178	1,770	2,413
Totals	19,615	15,129	12,372	11,615	13,480	16,613	16,349	15,490	12,109	11,023	14,569	22,373

Eleven-year average, 16,431 tons.

Botanical Drugs: Market Review

The botanical market in 1923 was in some respects the most remarkable of recent experience. Sustained strength was the keynote of the year, and this was based on two facts:—First, that botanical crops were most conservative throughout the collection centers of the world; second, that the carry-over from the crop of 1922 was small at all points. The first condition would have been much worse had not collectors raised the prices paid the field labor, this being intended as a stimulus to greater activity on the part of the workers.

It was the size of the 1923 world-wide botanical crop, the prices paid to stimulate collection, and the small carry-overs from the crop of 1922 that governed the price movements of both domestic and foreign botanicals throughout the year under review. Of course, the market at the beginning of the year was under the influence of the crop collection of 1922, and for that reason the first quarter proved to be a period of steady prices in a market displaying strong undertones. While in a measure there was some tendency toward shading of values, this tendency was not general nor would the situation as to replacement costs in the country at that time have supported a wide and inclusive movement toward lower spot levels. It was the conservative attitude of buyers rather than any pressure to move larger quantities of merchandise that caused such competition as existed. This in turn brought the shading of prices, which in virtually every article affected proved to be small. Sharp cutting was almost if not quite lacking.

Large stocks were lacking early in 1923. While fairly normal at the opening of the year the inventory showed most local houses to be carrying a safe line of merchandise. So true was this that a strong undertone prevailed. Demand was not sustained nor was it vigorous, but dealers felt the conservative stocks warranted the assumption that a sellers' market would develop before another crop could provide supplies in quantities sufficient to soften spot values. Of course, in January there was no reason to suppose that collections during the summer would fall down, and hence dealers were inclined to anticipate this softening of prices some time after June 1.

In some measure the trade's expectation of a larger demand was realized shortly after the turn of the year. In fact, during the first week there was a broadening of inquiry which continued even though business did not always increase proportionately. In other words, buyers increased their interest but not their purchases to the same degree. This did not induce extended price reductions, as the inventories had revealed few articles overstocked. Limited stocks were a feature of the inventory returns and made dealers determined to await larger demand rather than to stimulate it by price cuts. When declines came they were mostly in materials of but relative importance. Almost without exception the major articles were strong in undertone and advanced rather easily when demand reached them.

Primary markets held generally firm and displayed real strength. Attempts to counterbid prices quoted on replacements for either domestic or foreign botanicals at the sources of supply proved unavailing in the greater proportion of the attempts. Although foreign exchanges were rather favorable toward importation, the replacement costs were either even or but slightly higher or lower than the prevailing prices for spot goods.

Faced by these conditions, dealers were not anxious sellers early in the year. They had little "long" stock to liquidate and in most instances they were asked to pay parity prices for replacements. Dealers were mostly determined to await expansion in demand and felt secure in their determination. To a considerable degree this feeling was justified by subsequent events.

The above gives the situation in outline as it prevailed at the opening of the year under review. To a major degree the conditions mentioned influenced the market trend throughout the first quarter. Price movements were upward by a wide margin over declines; during the first quarter there were 319 advances and 215 declines in prices. Beyond the mere numbers was the fact that declines were fractional and the advances usually took place several cents at a time.

A part of the strong stimulus to replacement costs during January was due to the French going into the Ruhr district. This influence did not get very far directly, but indirectly it caused concern among German shippers in Hamburg, as at that time they did not know how far the French would go in seizing German cities to ensure the payment of reparation debts. Also, the collapse of the mark—a factor throughout the entire year, by the way—made it almost impossible to compute costs, as just as fast as the market declined in dollar exchange, the Hamburg crude drug merchants advanced their prices as an offset. The price advances were sharp enough in every instance, as there was no telling at that time how fast and to what extent the mark would continue to decline. Ultimately, it became worthless as a medium of valuation.

As the end of the first quarter approached, there was some reaction noted in prices. This was due principally to the anticipation of new crop collections and also to the shadow cast by the usual summer dullness, which, although some weeks away, seemed to affect buyers rather earlier by inducing a certain degree of hand-to-mouth buying. Prices sagged slightly and, while there were few large reductions in important articles, there seemed to be slightly less stability to quotations. This was more apparent on spot than in the primary market. Sellers there declared that local dealers were misled if they believed the country warehouses to be carrying over a large unsold stock into the new crop year. They were tenacious in their price views and sagging values in New York meant little or nothing to the first hand collectors and shippers at home or abroad.

Easing Off in First Quarter

The following tabulation of important articles gives a fair indication of the progress of values:—

	January 1.	March 31.
Aletris root	$0.60	$0.58
Arnica flowers	.14	.10
Balm of Gilead	.45	.44
Black haw, bark of root	.38	.37
Cascara sagrada bark	.14	.13½
Chamomile flowers, Roman	1.30	1.20
Cannabis, U.S.P., cultivated	2.00	2.00
Culver's root	.75	.30
Elm bark, select	.25	.24½
Ergot	.62	.53
Golden seal root	3.20	3.35
Helonias root	.65	.65
Ipecac root, Rio	1.55	1.90
Lobelia herb	.14	.14
Mandrake root	.16	.18
Manna flakes, large	.58	.58
small	.35	.33
Pink root	1.05	1.10
Prince's pine	.15	.16
Sassafras bark, select	.20	.23
Senega root	.75	.74
Skullcap, Eastern	.50	.50
Saffron flower, Spanish	34.00	46.00
Vanilla beans, Mexican	11.00	11.00
Wahoo bark of root	1.10	1.00

There are twenty-five articles in this tabulation. Of the total number, twelve showed a decline in the first quarter; seven advanced, six held without change.

The strongest material was Spanish saffron. A sensational advance was staged. Opening at $34 per pound during the first week in January, prices moved up $1 on cabled news from the primary market. Throughout the balance of January $35 was the price. During the first week of February $36 per pound became the market when the bullish advices were confirmed by a wider buying movement. During this and the ensuing week dealers here became convinced that Spanish stocks were short and that prices were bound to rise. They did. An advance to $42.50 per pound during the week of February 5 was followed by another to $45 per pound during that of February 12, at which price the market was nominal, due to the uncertainty as to how much higher the primary market would go. Late in the week of February 19 $46 per pound was reached, which was the prevailing price for the balance of the quarter. The market was nominal, as only the smallest quantities were available. The figure provided the market with a record high price for many years past; in fact, assertion had it that all previous records had been broken. The extraordinary prices, of course, curtailed consumption sharply. Much trouble was experienced in getting landed lots passed by the Department of Agriculture, several lots being rejected because of their not conforming to the requirements of the U.S.P. The end of the quarter found the market strong, with little promise of a turn in buyers' favor in the immediate future.

Ipecac root was another article noted for much strength. From January 1 to the week of the 22d prices held at $1.55 per pound for Rio root. During that week there developed a demand almost in excess of the market's ability to supply readily. Prices were advanced to $1.70 per pound for Rio and to $1.75 per pound for Cartagena. By February 12 there was virtually no spot supply and prices were nominal at $1.80 per pound. During the week of February 19 $1.90 per pound was reached, and this price proved to be the high for the movement in the first quarter. At that time the market was considered to be nominal.

Developments on the weaker side of the market were not especially striking. For the most part they were those minor concessions that absence of large demand dictated under competition for the very small business reaching the spot. There was very few developments worthy of special notice. Perhaps it might be pointed out that the weakness in cascara was ill-timed, as future developments proved the market to be one of great strength. Some of the prices on other articles appeared to be very cheap in the light of future developments. Among them might be mentioned prince's pine, select sassafras bark, lobelia herb, helonias root and Roman chamomile flowers.

The opening of the second quarter of the year found business quiet. The first week in April found the market influenced by the natural let-down in trading incident to the Easter season; at least that was one of the reasons advanced for the lull in demand. Despite this slowing down in trading, prices in the general list of botanicals seemed to be rather firm. In the month of April there were 83 declines and 53 advances in principal items.

Dealers on spot displayed little interest in primary market offerings save as they saw opportunity to move the goods promptly. When out of stock to fill in individual items specified on a general order the tendency was to buy them from competitors in the quantity needed. This avoided buying in larger quantities and adding to stocks.

Naturally all dealers had in mind the fact that a new crop was pending and that liberal collection might send prices down; hence spot stocks might be depreciated by declines caused by the lower prices on new crop collections.

However, as early as April advices from the South indicated that the country was carrying a limited stock over into the new crop season. This was also true as concerned reports from Europe. These early reports were classed as the usual propaganda incidental to the pre-collection months. Feeling here tended toward the idea that an excellent collection would be made during the summer months, owing to the higher prices paid in New York—this permitting collectors to pay higher wages and thus stimulate collection, and bring about a liberal replenishment of supplies.

Throughout the second quarter small business ruled. And the outstanding feature of the market during this time was the strong, independent, and uncompromising attitude of primary market sellers in the face of a dwindling demand. Almost without exception the first hands in the country declared that their stocks were small, employment costs were high, and workers were hard to get. To them, this constituted a bullish argument that caused them to sit "tight," and allow the market to develop along lines which to them were clearly defined. It meant high prices; they determined to hold for them.

It was not until the end of June that the first authoritative accounts of collection began to come in. Spot dealers about that time became more active in the consideration of supplies for the fall and winter months to come. It was not long before these authoritative reports put to flight any idea that crop collections would be larger; in fact, it seemed clear that to get anything like the amount of goods estimated as needed to cover even conservative requirements prices paid the collectors would have to be stiffly advanced. They were, but the beginning of the drive for supplies did not begin until the third quarter, and full effect on collection was not felt until later in the summer.

More Declines in Second Quarter

During the second quarter of the year, declines were far in excess of advances. Including all items and irrespective of importance, there were 364 declines, as compared with 143 advances. Almost the same proportion held for the more important materials. The following tabulation shows the trend in such a group:—

	April 1.	June 30.
Aletris root	$0.58	$0.55
Arnica flowers	.09	.08
Balm of Gilead	.40	.40
Black haw, bark of root	.37	.38
Cascara sagrada bark	.13½	.13½
Cannabis, U.S.P., cultivated	2.000	1.70
Chamomile flowers, Roman	1.20	1.60
Culver's root	.30	.26
Elm bark, select	.24½	.24½
Ergot	.53	.50
Golden seal root	3.35	3.35
Helonias root	.65	.65
Ipecac root, Rio	1.80	1.80
Lobelia herb	.14	.18
Mandrake root	.16½	.17
Manna flakes, large	.58	.54
Small	.32	.28
Pink root	1.10	1.00
Prince's pine	.16	Nominal.
Saffron flowers, Spanish	46.00	41.00
Sassafras bark, select	.23	.20
Senega root	.74	.65
Skullcap, Eastern	.50	.50
Vanilla beans, Mexican	11.00	8.50
Wahoo, bark of root	1.00	.85

Early in April there was liberal selling of Bourbon vanilla beans to Marseilles dealers. These goods were owned by local dealers, but were still in the French market. The sale for European consumption took place at a time when importers here were talking about scarcity, the inability of the dealers to supply known needs, and the prediction of much higher prices. Subsequently, this sale was accounted for; it was alleged that the beans were of a quality not finding a market in the United States.

Another interesting April development was the sharp price cutting on quince seed. The cuts were many in number and resulted from the keenest kind of competition between two large local factors. It was large quantities of cheap Indian seed that caused the cuts. There was manifest attempts to liquidate large holdings, and the consuming market was not readily developed; hence the series of declines that brought quotations from $1.30 to 90c. by the end of June. Cottonroot bark developed marked shortage, and toward the end of April the remaining supply was found cornered in strong hands. Prices skyrocketed from 13c. per pound to 30c. per pound within a few weeks. The corner was broken early in May, but prices declined but moderately. Buchu opened the quarter firm and showed an upward tendency throughout the next three months, advancing steadily in all markets. The situation in cascara bark began to tighten, and, although prices held unchanged, there were larger needs filled, and the primary market gave warning that much higher prices would come. Toward the end of May sarsaparilla strengthened and Mexican root advanced sharply.

In the above tabulation Roman chamomile occupies a position of prominence. This article was virtually cornered, as practically the entire spot supply was held by one dealer, who was prompt to profit by his advantage. The strong situation in culver's root eased up materially, and prices were influenced downward by the increase in local supplies following stimulated collection in the country. Prince's pine became unobtainable. When next put on the market the prices obtained were almost 100 percent above those at which the market became nominal. Spanish saffron weakened about the middle of May, and, starting from $46 per pound, dropped to $41 by the end of June. The high prices for senega root were liquidated under larger offerings of new crop, and the absence of any important demand for export purposes.

Irrespective of price movements during the second quarter certain items in this list proved to be excellent merchandise later on in the year. Among such was manna flake, arnica flowers, Roman chamomile flowers, culver's root, golden seal root, lobelia herb, mandrake root, prince's pine, wahoo bark of root and cascara bark.

Shortages Threaten

The third quarter of the year opened with definite indications of real shortage in new crop collection unless the most strenuous efforts were put forth by the collectors and dealers alike. Up to that time it had been supposed that the "scare" reports that had reached the spot were more or less propaganda put out by the principal country collectors in an effort to stem the tide of declining prices. With the beginning of July it was realized that the "propaganda" was something more than words and that the trade faced a difficult situation that only the free expenditure of money could in part conquer.

It was through the courtesy of a prominent New York house that the Reporter was able to offer the first list of articles found short stocked and which seemed destined to be undersupplied for the next consuming season. This list was drawn from the "inquiry book" of the local dealer; this book contained the record of the company's attempt to buy supplies for the fall and winter months. In July the following list of articles was found to be very hard to get:—Barks: genuine and so-called cramp; wild cherry. Herbs and leaves: deer tongue, peppermint and prince's pine. Roots: aletris, blue and black cohosh, echinacea, helonias, lady slipper, pink, pleurisy, spikenard and stone. Of some fifteen primary market factors approached for supplies of these articles fully three-quarters were unable to offer anything; the balance had but small quantities. In several instances but one shipper had anything on hand, and in every instance prices were high and approximated spot levels.

Much concern for the future was felt. Agricultural workers in the South were migrating into industrial districts. New cotton mills were springing up fast and paid wages that made crude drug returns decidedly unattractive to workers. Railroads were bidding for labor at high wages. These high returns in industrial pursuits attracted the young men and women from the fields, leaving the older folk and children to collect the needed botanics. Certainly the outlook for collection was decidedly bad, and there could be but one answer—purse strings were untied. Prices paid the laborers were advanced sharply and steadily in an effort to make collection attractive to the available workers.

Along this line it may be said that the prices paid by collectors and dealers averaged 40 percent higher than in 1922, despite which fact the warehoused tonnage early in July was found to be 10 percent under that of 1922.

This result in tonnage was predicated on general average of the entire warehoused supplies. For many articles the collected tonnage was far under that of the previous year. The increase in prices paid was also the result of averaging. In individual items prices actually paid were much in excess of the general average of 40 percent increase; in some instances, the prices paid were 200 percent and more above those given in 1922.

The following quotation is a statement made early in July by one of

the largest dealers in crude drugs in New York—it shows clearly the situation, the prospect, and the immediate sales policy of this factor:—"We are buying small lots and precisely as needed. Consumers are doing the same. Collectors in the country are paying too high prices, but they are strong in their quotations to us, and seem indifferent when sales do not result. We are not writing contracts, save as we have the goods covered. Unless conditions change, we see little hope for cheaper prices as we are paying 35 to 45 percent more, on the average, than we did at this time in 1922. We talked personally with two of the largest collectors a week ago and found them bearish on crop, independent as to price, and bullish as to the future."

A further indication of the "tight" situation prevailing in the middle of July was the attempt to buy 37,000 pounds of general botanical merchandise. Three of the largest primary market collectors of domestic botanicals were each asked to quote twenty-one important and unimportant articles on a firm basis for delivery within sixty days. One of these collectors offered four of the twenty-one articles; another named eight, but at prices impossible of acceptance at that time; the third refused to quote except on the basis of subsequent confirmation, and gave prices on but nine botanicals out of the twenty-one wanted. In no instance was the full quantity asked for offered, the quantities proposed being from 50 to 90 percent under the amounts wanted. This was real business, but the three primary market factors approached turned it away by either not having the goods or by naming prices so high that the local buyer did not feel justified in doing business. Of the 37,000 pounds wanted, only 9,000 were offered; no contracts would be made on the unavailable balance of 26,000 pounds.

Fortunately, the warning as to primary market conditions came early in the crop year. Local houses faced the situation frankly and applied the only known remedy—higher prices to the workers in the field. Having looked over the entire line of domestics and ascertained the spots where danger of under production was most pronounced—and not overlooking other articles in which the danger was less apparent or important—the collectors issued price lists to the workers, in which the scale of values to be paid constantly mounted. Each monthly list showed the collectors being forced to advance the rates they were willing to pay, and from day to day, in personal transactions through agents in the field, they raised the prices according to the need.

This developed something like bidding for supplies among the collectors and dealers. Advices from field agents were replete with the statements that on this and that article competitor A was bidding so much, or that B was taking everything in sight at such and such a figure. As an example, a price list of 200 articles, issued in June, contained 50 price changes; 49 of them were advances paid direct to the field laborers.

The net result of this campaign for stocks was to bring in a fair amount of merchandise, but at first costs sharply above those paid during the crop year of 1922. As stated earlier in this review, the general average of increased cost was around 40 percent, and in individual instances as much as 200 percent more was paid; from 75 percent to 150 percent more was a common experience on individual botanicals.

Conditions appeared to be set for a year of strong prices and experience over the balance of the year confirmed the early summer situation. Of course, the local market during the summer months was a very dull affair, but it was no more so than is usual. In fact, the main concern of local houses was not to develop a good demand during the summer, but to secure a stock on which to trade during the fall, winter and spring months to come.

If demand was merely typical of the summer time market, the effect of the drive for supplies at the expense of first costs was none the less present.

Strengthening in Third Quarter

The trend of the market during the third quarter of the year is clear from the following tabulation which has already been presented in illustration of the trend during the first two quarters:—

	July 1.	Sept. 30.
Aletris root	$0.55	$0.55
Arnica flowers	.08	.07½
Balm of Gilead	.40	.42
Black haw bark of root	.38	.40
Cascara sagrada bark	.13½	.15
Cannabis, U. S. P., cultivated	1.70	1.70
Chamomile flowers, Roman	1.75	2.00
Culver's root	.26	.30
Elm bark, select	.24½	.25
Ergot	.50	.50
Golden seal root	3.35	3.60
Helonias root	.80	.90
Ipecac root, Rio	1.80	1.80
Lobelia herb	.18	.18
Mandrake root	.17	.17
Manna flake, large	.58	.60
Small	.28	.26
Pink	1.00	1.00
Prince's pine	.16	.30
Saffron flowers, Spanish	38.00	35.00
Sassafras bark, select	.27	.20
Senega root	.65	.60
Skullcap, Eastern	.50	No stocks
Vanilla beans, Mexican	8.50	9.50
Wahoo bark of root	.85	.80

The fall months opened auspiciously. In October dealers were still driving ahead for stocks, achieving results, and paying stiff prices for their materials. Buyers showed a disposition to "open up" somewhat and anticipate needs. It was perhaps more than a coincidence that the requirements centered largely on strong items—those in which sellers were not too well stocked or were not inclined to sell freely, anticipating a higher spot market later on.

Contract business was good within limits. Sellers adopted the policy of writing contracts only for such merchandise as they had definitely in store or which was under contract in the country with responsible collectors. Emphasis was laid on the idea of not writing consuming contracts for merchandise not already in hand. The outlook for the crop was too uncertain to make safe the liberal booking of consuming contracts against crude drugs contracted for in the primary market but not actually delivered to the local dealer.

Buyers found their operations curtailed for another reason also. Banks were rather conservative on granting long term loans on merchandise. The general idea was to permit the manufacturing consumer to protect his needs not more than three months ahead—and some of them might have been willing to have anticipated six months forward had the loans been available. This affected the smaller man more than the larger consuming house which would be able to finance its own operations.

However, in all truth it may be said that the majority of consumers had abandoned the policy of stocking up heavily merely because prices appeared to be cheap. The pre-war speculation, if such it may be called, against market trend had given way to a much more conservative buying policy that considered reasonably nearby manufacturing needs, protected them, and held further buying in abeyance until actual need forced the issue.

Also, there was a change in the methods of buying. More and more the consuming trade has been going direct to first-hands in primary markets, eliminating the importers and middlemen. During the past year this tendency has served to aid primary market holders in getting the high prices they asked.

Finally, many purchasing agents of large companies labored under a budget system of purchase. Higher authority set the purchasing agent's budget each month and once the budgeted sum had been expended, buying closed down until the next month.

With the above governing circumstances, the fall markets opened in excellent shape, with inquiry good and demand growing constantly, especially for items in particularly strong position. This situation obtained throughout the month of October.

It was during the last two months of the year that the buying public felt more fully the forces that were set in motion earlier in the year, as outlined the fore part of this review. Each week brought its demand of large caliber for specific items. The trend of the entire market was upward. Almost without exception the local houses reported a steady gain in sales volume. They also discovered that their attempts to stimulate crop collection had been but partially.

During the last two months of the year few dealers had a full line of domestic and foreign botanicals. Where individual needs of consumers made it wise, any shortages in stocks were satisfied, when possible, in the primary markets; more often, however, the primary market prices were so high as to make it dangerous to carry a full line of merchandise. This gave rise to an increased amount of trading between dealers. Orders received from consumers often contained materials of which the dealer held little or nothing. The needed materials were more often than not bought from a competitor. In the end this brought about numerous corners of merchandise. They were usually short lived, but while they lasted the dealer with virtually the only spot stock saw to it that the advantage was turned into profit to himself. These "corners" became a feature before the end of the year. They oftentimes came in materials that had been selling steadily in a jobbing way, thus causing stocks to shrink. They were discovered when some consumer wanted one or several round-lot quantities and found the entire stock concentrated in the hands of one or two dealers. It was not surprising to find prices advancing 50 to 100 percent within a single week; sometimes it occurred overnight.

High Levels in Fourth Quarter

An excellent idea of the extent to which the crop conditions affected prices paid by consumers may be gained from the following tabulation of important botanicals. The list could be expanded almost ad lib. without change in the general result. The list includes the materials already followed through three-quarters of the year, and also contains other articles that reached prominence because of the world-wide short crop of crude drugs. The tabulation follows:—

Advances

	July.	Dec.	Up.
Aconite root	$0.38	$0.45	$0.07
Aletris root	.55	.60	.05
Arnica flowers	.08	.12	.04
Arrowroot, St. Vincent	.13½	.16	.02½
Balm of Gilead	.40	.48	.08
Blood root	.12½	.16	.03½
Heliadonna leaves	.17	.20	.03
Black haw bark of root	.38	.42	.04
Cardamon seed, bleached	1.00	1.40	.40
Clove, Zanzibar	.30	.34	.04
Cascara bark	.13½	.27	.13½
Culver's root	.26	.35	.09
Celery seed	.21	.27	.06
Clover tops	.14	.23	.09
Elm bark, selected	.25	.28	.03
Golden seal root	3.35	3.40	.05
Helonias root	.80	.88	.08
Insect powder	.56	.65	.09
Ipecac root, Rio	1.75	2.10	.35
Jalap root	.30	.33	.03
Lavender flowers, ordinary	.20	.25	.05
Lobelia	.18	.22	.04
Manna flake, small	.28	.37	.09
Mandrake root	.17	.20	.03
Prince's pine leaves	.16	.35	.19
Tolu balsam	1.25	2.50	1.25
Skullcap, Eastern	.50	.65	.15
Sassafras bark, select	.27	.30	.03
Spikenard root	.15	.26	.11
Wahoo, bark of root	.80	1.00	.20
Wild cherry bark, thin natural	.08	.10¼	.02½
Vanilla beans, Mexican	9.00	10.00	1.00
Bourbons	4.50	6.00	1.50

Certainly the above presents a strong array of active and advancing materials for which the demand was especially keen and the supplies so moderate as to force values steadily upward.

Of course, there was a reverse side of the market; that of price declines. A number of important items underwent severe reduction in values, but it was significant that the declining movements, when they did come, occurred mostly in imported botanicals. This was due principally to the fluctuations in foreign exchange, especially on European countries. German marks went all to pieces during the summer, and during the final quarter of the year sterling, francs, lire, etc., became sharply depressed.

Some understanding of this situation may be gained from the following table of the more important items affected in this manner:—

Declines

	July.	Dec.	Down.
Aconite leaves	$0.16	$0.12	$0.04
Buchu leaves	.90	.85	.05
Cannabis, U.S.P., domestic	1.70	1.35	.35
Chamomile flowers, Roman	2.00	.95	1.05
Cottonroot bark	.28	.20	.08
Ergot	.50	.35	.15
Fir balsam, Oregon	3.00	1.60	1.40
Lycopodium	.43	.34	.09
Rhubarb root, high dried	.43	.34	.09
Saffron flowers, America.n	1.08	.78	.30
Valencia	41.50	34.00	7.50
Sarsaparilla root, Mexican	.35	.26	.09
Valerian root	.11½	.08	.02½

The downward movement of values was more evident toward the end of the year. This was quite as might be expected, as the approach of the holiday period was accompanied by a decided lull in December demands. Price declines were not so much in evidence as was the growth of price shading—the granting of fractional or minor concessions so that an individual order might be placed on the books. In doing this sellers had in mind the advantage of keeping inventoried stocks as low as was consistent with the probable consuming requirements after the turn of the year.

This was not interpreted as market weakness; the statistical position was excellent and nothing like a "long" line of merchandise was in hand. The future trend of values would be dictated almost entirely by the extent of demand and hence open reduction of selling levels and dumping of botanicals on the market had no place in the operations of the market late in the year. Prices might be shaded to get an order; once the order was booked the price that got the business did not often become the market price for furt transactions; the shading was eliminated and the former figure returned.

A final view of the botanical year may be gained from the following tabulation of Reporter Index Numbers. They are based on the weekly changes in prices occurring in forty representative crude drugs—twenty foreign and twenty domestic.

REPORTER BOTANICAL INDEX NUMBERS

Normal 60—August, 1914

	1923.	1922.
January 1	122.5	79.9
February 1	127.6	80.8
March 1	152.4	86.2
April 1	151.6	104.2
May 1	152	106.1
June 1	141.3	106.2
July 1	131	106.8
August 1	126.2	106.8
September 1	123.3	106.1
October 1	123.5	114.8
November 1	123.9	117.8
December 1	123.3	122
December 31	120.7	122.5

A word about the above table is required. The Index Number for 1923 showed a sharp drop at midyear, then held steady with a tendency toward a rise until December when the low for the year was touched.

The sharp drop at midyear was caused by the sudden collapse of Spanish saffron. Early in the second quarter, this article was high for the year at $46 per pound. In June, it broke to $41; in July, to $38; in September, the price was $35; at the end of September, it was $34 per pound.

The important thing to understand is that after the first break in prices, followed by a steady downward revision, the botanical Index Number rose from 123.2 in September to 123.9 in November—during which time Spanish saffron was declining at the rate of 50c. or $1 per week.

In other words, while one botanical was declining from $38 to $34 per pound, thirty-nine others were advancing sufficiently to offset the decline of $4, which occurred in saffron between July and December.

Probably in no other way could the basic strength of the market be illustrated.

At the end of the year it was clear that the promise of early summer had been realized. The promise then was for moderate stocks and very high and advancing prices. In December, this had been translated into accomplishment. And nothing except almost total absence of demand suggested that the first quarter of the new year would prove to be one of declining prices and bearish market trend.

Botanical Drugs: Record of Prices

Miscellaneous

Balm of Gilead

On December 20, 1899, the price was 35c.; October 18, 1901, 32c.; 1911, 25c. to 26c.; 1913, 24c. to 26c.; 1919, March, $3.60.

	Per pound— 1922. H.	1922. L.	1923. H.	1923. L.
January	$0.50	$0.45	$0.45	$0.45
February	.45	.45	.47	.47
March	.45	.45	.45	.44
April	.45	.40	.40	.40
May	.45	.40	.40	.40
June	.45	.45	.40	.40
July	.45	.45	.42	.40
August	.45	.45	.42	.42
September	.43	.43	.42	.40
October	.43	.43	.45	.40
November	.43	.42	.45	.45
December	.45	.42	.48	.45
Year	.50	.40	.48	.40

Ergot, Spanish

On November 22, 1871, the price was 80c.; October 18, 1881, 60c. to 65c.; 1891, 38c. to 43c.; 1901, 42c. to 45c.; 1911, $1.25 to $1.30; 1913, $1.25 to $1.30; 1919, December, $5.

	Per pound— 1922. H.	1922. L.	1923. H.	1923. L.
January	$1.07	$1.03	$0.62	$0.60
February	1.03	1.02	.60	.55
March	1.02	.95	.58	.53
April	1.03	1.00	.53	.53
May	1.05	1.00	.53	.51
June	1.05	1.03	.50	.50
July	1.05	1.03	.50	.50
August	1.05	1.00	.50	.50
September	.80	.70	.50	.40
October	.63	.55	.40	.38
November	.60	.60	.36	.35
December	.62	.60	.35	.35
Year	1.07	.55	.62	.35

Lycopodium

On February 25, 1874, the price was 70c.; October 18, 1881, 32c. to 34c.; 1891, 33c. to 36c.; 1901, 52c. to 54c.; 1911, 48c. to 50c.; 1913, 42c. to 44c.; 1921, February, $4.75.

	Per pound— 1922. H.	1922. L.	1923. H.	1923. L.
January	$1.30	$1.10	$0.48	$0.46
February	1.10	1.00	.40	.40
March	1.10	1.05	.54	.36
April	1.05	1.05	.40	.36
May	1.05	1.00	.45	.45
June	1.00	.85	.45	.43
July	.90	.85	.43	.43
August	.85	.75	.36	.36
September	.75	.75	.36	.36
October	.75	.75	.36	.34
November	.72	.50	.34	.34
December	.50	.48	.34	.34
Year	1.30	.48	.54	.34

Manna, Flake

On October 18, 1871, the price on large flake was $1.40; small flake, 83c. to 85c.; 1881, large flake, 95c. to $1; small flake, 38c. to 40c.; 1891, large flake, 75c. to 80c.; small flake, 30c. to 35c.; 1901, large flake, 80c. to $1; small flake, 30c. to 35c.; 1911, large flake, $1; small flake, 75c. to 80c.; 1913, large flake, 85c. to 90c.; small flake, 55c. to 57c.; 1919, large, April, $1.30; small, October, 1916, $1.65.

1922

	Per pound— Large. H.	Large. L.	Small. H.	Small. L.
January	$0.85	$0.85	$0.50	$0.45
February	.85	.85	.52	.44
March	.85	.85	.52	.52
April	.85	.85	.52	.52
May	.85	.85	.50	.48
June	.90	.85	.55	.48
July	.90	.90	.60	.55
August	.90	.90	.55	.55
September	.90	.85	.58	.48
October	.85	.85	.48	.40
November	.85	.58	.48	.36
December	.58	.58	.36	.35
Year	.90	.58	.60	.35

1923	Large.		Small.	
	H.	L.	H.	L.
January	$0.58	$0.58	$0.35	$0.35
February	.58	.58	.35	.35
March	.58	.58	.35	.33
April	.58	.55	.32	.30
May	.55	.55	.30	.30
June	.54	.54	.30	.28
July	.58	.58	.28	.28
August	.58	.58	.28	.26½
September	.60	.60	.37	.26
October	.75	.75	.40	.37
November	.80	.75	.40	.38
December	.79	.79	.37	.37
Year	.80	.54	.40	.26

Nux Vomica, Buttons

On November 22, 1871, the price for powder was 18c. to 21c.; October 18, 1881, 2½c.; 1891, 3¼c. to 4½c.; 1901, 2¾c. to 3c.; 1911, 2½c. to 3c.; 1913, 2¾c. to 3c.; 1920, June, 18c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10	$0.10	$0.07½	$0.07½
February	.09	.09	.07½	.07
March	.09	.08	.07	.06¾
April	.08	.07	.06¾	.06
May	.08	.07	.06½	.06⅛
June	.06	.06	.05	.05
July	.08	.06	.05	.05
August	.08	.06¼	.05	.05
September	.07½	.06½	.05	.05
October	.07½	.07½	.05	.05
November	.07½	.07½	.04¾	.04¾
December	.07½	.07½	.04¾	.04¾
Year	.10	.06	.07½	.04¾

Tamarinds

On July 20, 1881, the price was $1.75; October 18, 1881, $2; 1901, $2.05 to $2.25; 1911, $2.50 to $2.75; 1913, $2.45 to $2.50; 1919, November, $7.

	(Per keg)			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.00	$2.75	$3.25	$2.80
February	2.75	2.75	3.25	3.25
March	2.75	2.75	3.50	3.25
April	2.75	2.75	3.50	3.50
May	2.75	2.75	3.50	3.50
June	2.75	2.75	3.50	3.50
July	2.75	2.75	3.50	3.50
August	2.75	2.75	3.50	3.50
September	3.75	3.75	3.50	3.50
October	3.75	3.75	3.50	3.50
November	3.85	3.85	3.50	3.50
December	3.50	2.80	3.50	3.50
Year	3.85	2.75	3.50	2.80

Balsams

Copaiba, Para

On October 18, 1871, the price was 77½c. to 80c.; 1881, 52½c. to 54c.; 1891, 52¼c. to 55c.; 1901, 45c. to 50c.; 1911, 60c. to 85c.; 1913, 48c. to 50c.; 1919, March, 75c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.26	$0.26	$0.23	$0.23
February	.26	.26	.23	.23
March	.25	.25	.23	.23
April	.25	.25	.23	.23
May	.25	.25	.23	.23
June	.25	.25	.23	.23
July	.25	.25	.23	.23
August	.25	.24	.23	.23
September	.24	.24	.23	.23
October	.24	.24	.23	.23
November	.24	.24	.23	.23
December	.24	.24	.23	.23
Year	.26	.24	.23	.23

Copaiba, South American

On October 18, 1871, the price was 77½c. to 80c.; 1881, 52½c. to 54c.; 1891, 60c.; 1901, 35c. to 40c.; 1911, 38c. to 45c.; 1913, 44c. to 48c.; 1918, January, 97½c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.28	$0.28
February	.30	.30	.28	.28
March	.29	.29	.28	.28
April	.29	.29	.28	.28
May	.29	.29	.28	.28
June	.29	.29	.28	.28
July	.29	.29	.28	.28
August	.29	.29	.28	.28
September	.29	.29	.27	.27
October	.29	.29	.27	.27
November	.29	.29	.27	.27
December	.29	.28	.27	.27
Year	.30	.28	.28	.27

Fir, Canada

On November 22, 1871, the price was $3 to $3.50; October 18, 1881, $2.25; 1891, $1.70 to $1.90; 1901, $3.65 to $3.75; 1911, $4.10 to $4.25; 1913, $9.50 to $10; 1920, April, $16.

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$12.00	$10.75	$11.00	$10.75
February	10.75	10.75	11.00	11.00
March	10.75	10.75	11.00	11.00
April	10.75	10.75	12.00	12.00
May	10.75	10.75	12.50	12.50
June	10.75	10.75	13.00	12.50
July	10.75	10.75	13.00	12.80
August	10.75	10.75	12.80	12.80
September	10.75	10.75	12.80	12.80
October	10.75	10.75	12.80	12.80
November	10.75	10.75	12.80	12.80
December	10.75	10.75	12.80	12.80
Year	12.00	10.75	13.00	10.75

Fir, Oregon

On March 26, 1873, the price was $3.50; October 18, 1881, nominal; 1891, $1 to $1.10; 1901, 75c. to 80c.; 1911, 80c. to 90c.; 1913, $1.30 to $1.50; 1919, December, $1.90.

	Per gallon			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.45	$1.30	$1.65	$1.65
February	1.45	1.30	2.75	2.40
March	1.60	1.25	2.75	2.75
April	1.35	1.20	3.75	3.75
May	1.20	1.20	4.00	3.75
June	1.20	1.20	3.50	3.00
July	1.35	1.20	3.00	3.00
August	1.35	1.30	3.00	2.85
September	1.35	1.35	2.85	2.60
October	1.35	1.35	2.60	2.15
November	1.35	1.35	2.15	2.15
December	1.70	1.70	2.00	1.60
Year	1.70	1.20	4.00	1.60

Peru

On October 18, 1871, the price was $3.90; 1881, $2.75 to $3; 1891, $1.20 to $1.40; 1901, $1.30 to $1.40; 1911, $1.50 to $1.90; 1913, $1.50 to $1.60; 1920, February, $5.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.40	$1.40	$2.25	$2.10
February	1.65	1.50	2.10	2.00
March	2.25	1.75	1.90	1.85
April	2.35	2.25	1.85	1.65
May	2.25	2.10	1.75	1.75
June	2.00	1.75	1.75	1.75
July	1.75	1.75	1.75	1.75
August	1.75	1.75	1.75	1.75
September	1.75	1.65	1.75	1.75
October	1.70	1.65	1.75	1.75
November	1.80	1.75	1.75	1.75
December	2.00	1.90	1.75	1.75
Year	2.35	1.40	2.25	1.65

Tolu

On October 18, 1871, the price was 80c.; 1881, 65c. to 70c.; 1891, 27c. to 30c.; 1901, 33c. to 35c.; 1911, 50c. to 60c.; 1913, 80c. to 85c.; 1919, October, $1.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.75	$0.75
February	.47½	.37½	.75	.75
March	.55	.50	.85	.77½
April	.55	.50	.97½	.85
May	.55	.55	1.00	1.00
June	.55	.50	1.20	1.05
July	.75	.50	1.40	1.25
August	.70	.70	1.75	1.50
September	.70	.65	2.25	1.90
October	.70	.65	2.25	2.25
November	.75	.75	2.25	2.25
December	.75	.75	2.50	2.25
Year	.75	.30	2.50	.75

Barks

Black Haw Root

On December 20, 1897, the price was 7½c. to 8½c.; October 18, 1901, 10½c. to 12c.; 1911, 19c. to 20c.; 1913, 16c. to 18c.; 1918, December, 65c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.24	$0.24	$0.38	$0.38
February	.24	.24	.42	.38
March	.24	.24	.42	.37
April	.24	.22	.40	.37
May	.22	.22	.40	.40
June	.22	.22	.40	.38
July	.22	.22	.38	.38
August	.25	.22	.40	.38
September	.28	.26	.40	.40
October	.30	.28	.42	.40
November	.40	.30	.42	.40
December	.40	.38	.42	.40
Year	.40	.22	.42	.37

Calisaya

On February 25, 1874, the price was $1.15; October 18, 1881, $1.50 to $1.75; 1891, 15c. to 65c.; 1901, 22c. to 25c.; 1911, 18c. to 28c.; 1913, 18c. to 28c.; 1918, June, 85c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.20	$0.20	$0.12	$0.12
February	.20	.20	.14	.14
March	.20	.17	.16	.14
April	.17	.17	.16	.16
May	.17	.17	.19	.19
June	.17	.12	.19	.19
July	.12	.12	.19	.19
August	.12	.12	.23	.23
September	.12	.12	.23	.23
October	.12	.12	.23	.23
November	.12	.12	.24	.24
December	.12	.12	.24	.24
Year	.20	.12	.24	.12

Cinchona, Red, Quills

On November 22, 1871, the price was 90c. to $1; October 18, 1881, 15c. to $1.75; 1891, 25c. to 35c.; 1901, 20c. to 25c.; 1911, 18c. to 20c.; 1913, 20c. to 28c.; 1918, May, $1.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.40	$0.30	$0.45	$0.40
February	.30	.30	.50	.50
March	.30	.30	.50	.50
April	.30	.30	.50	.50
May	.30	.30	.50	.50
June	.30	.30	.50	.50
July	.30	.30	.50	.50
August	.40	.40	.50	.50
September	.40	.40	.50	.50
October	.40	.40	.50	.50
November	.40	.40	.50	.50
December	.40	.40	.48	.48
Year	.40	.30	.50	.40

Condurango

On November 22, 1871, the price was $6 to $8; October 18, 1896, 18c.; 1901, 14c. to 16c.; 1911, 17c. to 18c.; 1913, 12½c. to 14c.; 1917, September, 14c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09½	$0.07	$0.07	$0.07
February	.07	.07	.08	.07
March	.07	.07	.15	.08
April	.07	.07	.15	.14
May	.07	.07	.13	.13
June	.07	.07	.13	.13
July	.07	.07	.13	.13
August	.07	.07	.13	.13
September	.08	.07	.13	.13
October	.07	.07	.13	.12½
November	.07	.07	.12½	.12½
December	.07	.07	.13	.12½
Year	.09½	.07	.15	.07

Cascara Sagrada, New Peel

On March 31, 1880, the price was 40c. to 50c.; October 18, 1891, 5c. to 6c.; 1901, 5c. to 7c.; 1911, 9c. to 10½c.; 1913, 7¾c. to 10c.; 1918, September, 19c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11	$0.11	$0.14	$0.13½
February	.11	.11	.13½	.13½
March	.11	.11	.13½	.13½
April	.10	.10	.13½	.13½
May	.11	.11	.13½	.13½
June	.11	.10½	.13½	.13½
July	.11	.11	.14½	.13½
August	.11	.11	.15	.14½
September	.11	.11	.18	.15
October	.12	.11	.26	.18½
November	.12	.12	.28	.27
December	.14	.12	.27	.26
Year	.14	.10	.28	.13½

Cottonroot

On August 25, 1886, the price was 8c. to 9c.; October 18, 1881, 8c. to 9c.; 1906, 8½c. to 10c.; 1911, 22c. to 23c.; 1913, 6c. to 7c.; 1920, August, 80c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.13	$0.13
February	.14	.14	.13	.13
March	.14	.14	.13	.13
April	.14	.14	.30	.13
May	.14	.14	.30	.25
June	.14	.14	.30	.28
July	.13	.13	.28	.28
August	.13	.13	.28	.28
September	.13	.13	.28	.28
October	.13	.13	.30	.28
November	.13	.13	.30	.26
December	.13	.13	.26	.22
Year	.14	.13	.30	.13

Elm, Selected, Bundles

On February 18, 1874, the price was 16c.; October 8, 1881, 12½c. to 14c.; 1891, 12½c. to 14c.; 1901, 12c.; 1911, 17c. to 20c.; 1913, 17c. to 21c.; 1920, October, 90c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$0.26	$0.25
February	.30	.28	.26	.26
March	.28	.28	.26	.24½
April	.25	.25	.24½	.24½
May	.24	.21	.24½	.24½
June	.20½	.20	.24½	.24½
July	.28	.20½	.25	.24½
August	.30	.27	.25	.25
September	.27	.27	.28	.25
October	.27	.27	.31	.27
November	.27	.27	.31	.26
December	.25	.25	.28	.26
Year	.30	.20	.31	.24½

Lemon Peel

On October 18, 1911, the price was 5c. to 6c.; 1913, 6¼c. to 7c.; 1918, January, 10c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.09	$0.09
February	.09	.09	.09	.09
March	.09	.09	.09	.08
April	.09	.09	.08	.08
May	.09	.08½	.08	.08
June	.08½	.08½	.08	.08
July	.08½	.08½	.08	.08
August	.08½	.08½	.08	.08
September	.08½	.08½	.08	.08
October	.08½	.08½	.08	.08
November	.09	.08½	.08	.08
December	.09	.09	.08	.08
Year	.09	.08½	.09	.08

Orange Peel, Bitter Curacao

On November 22, 1871, the price was 8c. to 9c.; October 18, 1881, 13c. to 14c.; 1891, 4½c. to 10c.; 1901, 3c. to 4c.; 1911, 4c. to 5c.; 1913, 4c. to 5c.; 1919, August, 21c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.06	$0.06	$0.06
February	.06	.06	.06	.06
March	.06	.06	.06	.06
April	.06	.05½	.06½	.06
May	.05½	.05½	.07½	.07½
June	.05	.05	.07½	.07½
July	.05	.05	.07½	.07½
August	.05	.05	.07½	.07½
September	.05	.05	.07½	.07½
October	.05	.05	.07½	.07½
November	.06	.05	.07½	.07½
December	.06	.06	.07½	.07½
Year	.06	.05	.07½	.06

Prickly Ash

On April 3, 1878, the price of crushed was 13c.; October 18, 1881, 10c. to 16c.; 1891, 9c. to 10c.; 1901, 8c. to 10c.; 1911, 28c. to 35c.; 1916, 14c. to 16c.; 1920, December, 28c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.15	$0.15	$0.13	$0.13
February	.15	.15	.13	.13
March	.15	.15	.13	.13
April	.15	.15	.13	.13
May	.15	.15	.13	.13
June	.14	.14	.13	.13
July	.14	.13	.13	.13
August	.13	.13	.13	.13
September	.13	.13	.13	.13
October	.13	.13	.13	.13
November	.13	.13	.13	.13
December	.13	.13	.13	.13
Year	.15	.13	.13	.13

Sassafras, Ordinary

On November 22, 1871, the price was 5c. to 5½c.; October 18, 1881, 6c. to 6½c.; 1891, 8c. to 10c.; 1901, 6½c. to 10c.; 1911, 12c. to 14c.; 1913, 11c. to 13c.; 1919, December, 49c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.12	$0.11	$0.13	$0.12
February	.12	.12	.13	.13
March	.12	.11	.13	.13
April	.11	.11	.14	.13
May	.11	.11	.15	.11
June	.11	.11	.11	.11
July	.11	.11	.14	.11
August	.11	.11	.14	.14
September	.11	.11	.14	.14
October	.11	.10	.15	.14
November	.12	.10	.15	.15
December	.12	.11	.15	.15
Year	.12	.10	.15	.11

Soap, Whole

On April 2, 1878, the price was 8c.; October 18, 1881, 4½c. to 6½c.; 1891, 8½c. to 9c.; 1901, 3½c. to 4c.; 1911, 6c. to 6½c.; 1913, 8½c. to 9½c.; 1919, August, 16c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.05½	$0.07	$0.06⅛
February	.05½	.05	.07	.07
March	.05½	.05	.07	.07
April	.05½	.05½	.07	.07
May	.05½	.05½	.07½	.07
June	.06	.06	.07½	.07½
July	.06½	.06	.07½	.07½
August	.06½	.06½	.07½	.07½
September	.06½	.06½	.07⅞	.07½
October	.06½	.06½	.07⅞	.07½
November	.06½	.06½	.07⅞	.07½
December	.06½	.06½	.08	.07½
Year	.06⅞	.05	.08	.06½

Soap, Cut

On April 2, 1878, the price was 3c.; October 22, 1886, 6c. to 7c.; 1911, 8c. to 8½c.; 1913, 10c.; 1920, May, 26c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.08	$0.07⅛
February	.09	.08½	.08	.08
March	.08½	.08½	.08¼	.08⅛
April	.08½	.08½	.08⅛	.08¼
May	.08½	.08½	.08⅛	.08⅛
June	.08½	.08½	.09	.09
July	.08½	.08½	.09	.09
August	.08½	.08½	.08½	.08½
September	.08½	.08½	.08½	.08½
October	.08½	.08½	.08½	.08½
November	.08½	.08	.08½	.08½
December	.08	.07½	.09½	.08½
Year	.09	.07½	.09½	.07½

Soap, Crushed

On April 2, 1878, the price was 16c.; October 18, 1881, 8c. to 8½c.; 1891, 9c. to 10c.; 1901, 5c. to 6c.; 1911, 7c. to 7½c.; 1913, 10c.; 1919, August, 23c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.08½	$0.08
February	.09	.09	.08⅛	.08½
March	.08½	.08½	.08⅛	.08⅛
April	.08½	.08½	.08⅛	.08⅛
May	.08½	.08½	.08⅛	.08⅛
June	.08½	.08½	.09½	.08½
July	.08½	.08½	.09½	.09½
August	.08½	.08½	.09½	.09½
September	.08½	.08½	.09¾	.09¾
October	.08½	.08½	.09¾	.09¾
November	.08½	.07½	.09¾	.09¾
December	.08	.07½	.10	.09¾
Year	.09	.07½	.10	.08

Wahoo Root

On December 20, 1897, the price was 19c. to 20c.; October 18, 1901, 16c. to 20c.; 1911, 40c. to 42c.; 1913, 36c. to 50c.; 1920, December, 90c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.55	$0.55	$1.10	$1.10
February	.55	.55	1.10	1.10
March	.55	.55	1.10	1.00
April	.55	.52	1.00	1.00
May	.52	.52	.85	.85
June	.52	.52	.85	.85
July	.52	.52	.85	.80
August	.52	.52	.80	.80
September	Nominal		.93	.80
October	Nominal		1.00	.93
November	1.25	1.25	1.00	1.00
December	1.40	1.25	1.00	1.00
Year	1.40	.32	1.10	.80

Wahoo Tree

On December 20, 1897, the price was 14c. to 15c.; October 18, 1901, 14c. to 15c.; 1911, 15c. to 18c.; 1913, 15c. to 18c.; 1920, April, 40c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.28	$0.28	$0.45	$0.40
February	.28	.28	.40	.40
March	.28	.28	.40	.40
April	.28	.28	.40	.40
May	.28	.28	.40	.40
June	.28	.28	.40	.40
July	.28	.28	.40	.40
August	.28	.28	.40	.40
September	.28	.28	.40	.40
October	.28	.28	.40	.40
November	.45	.28	.40	.40
December	.45	.30	.40	.40
Year	.45	.28	.45	.40

Wild Cherry, Thick, Unrossed

On April 28, 1875, the price was 6c.; October 18, 1881, 5½c.; 1901, 5½c.; 1911, 6c.; 1913, 6c.; 1919, February, 27c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.06	$0.05	$0.05
February	.06	.06	.05	.05
March	.06	.06	.05	.05
April	.06	.06	.05	.05
May	.06	.06	.05	.05
June	.05	.05	.05	.05
July	.04½	.04½	.05	.05
August	.04¼	.04¼	.05½	.05
September	.04¼	.04¼	.05½	.05½
October	.04¼	.04¼	.06½	.05½
November	.04¼	.04¼	.06	.05
December	.05½	.04¼	.05	.05
Year	.06	.04¼	.06½	.05

Wild Cherry, Thin, Unrossed

On April 28, 1875, the price was 7c.; October 18, 1881, 9c.; 1901, 7½c.; 1911, 9c.; 1913, 9c.; 1919, January, 35c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.09	$0.09	$0.08½	$0.08½
February	.09	.09	.09	.08
March	.09	.09	.09	.09
April	.09	.09	.09	.09
May	.09	.09	.09	.09
June	.07¾	.07¼	.09	.08
July	.07¼	.07¼	.08	.08
August	.07½	.07¼	.10	.08
September	.07½	.07	.10	.09
October	.07	.07	.11	.09
November	.08	.07	.11	.10½
December	.08½	.08	.10½	.10½
Year	.09	.07	.11	.08

Beans

Calabar

On February 16, 1881, the price was 40c.; October 18, 1881, 40c.; 1891, 16c. to 18c.; 1901, 8c. to 12c.; 1911, 37c. to 60c.; 1913, 25c. to 30c.; 1918, October, 75c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.18	$0.18	$0.14	$0.13
February	.18	.18	.13	.13
March	.18	.18	.13	.13
April	.18	.18	.13	.13
May	.18	.18	.13	.13
June	.17	.17	.12	.13
July	.17	.17	.13	.13
August	.17	.17	.13	.13
September	.17	.17	.13	.13
October	.17	.17	.13	.12
November	.17	.14	.12	.12
December	.17	.14	.12	.12
Year	.18	.14	.14	.12

Tonka, Angostura

On November 22, 1871, the price was 55c. to 60c.; October 18, 1881, $2.50 to $3.25; 1891, $1.80 to $2.20; 1901, 80c. to 85c.; 1911, $5.25 to $5.50; 1913, $1.75 to $2; 1919, July, $1.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.35	$1.35	$2.15	$2.15
February	1.20	1.20	2.10	2.10
March	1.20	1.20	2.10	2.00
April	1.20	1.20	2.00	2.00
May	1.20	1.20	2.00	2.00
June	1.20	1.20	2.00	2.00
July	1.75	1.20	2.00	2.00
August	1.75	1.75	2.00	2.00
September	2.00	2.00	2.00	2.00
October	2.00	2.00	2.25	2.00
November	2.00	2.00	2.25	2.25
December	2.15	2.15	2.25	2.25
Year	2.15	1.20	2.25	2.00

Vanilla, Mexican, Whole

On November 22, 1871, the price was $14 to $16; October 18, 1881, $5 to $15; 1891, $4 to $8; 1901, $8 to $13.50; 1911, $4 to $5; 1913, $3.75 to $5; 1917, April, $5.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$7.50	$7.50	$11.00	$11.00
February	8.00	7.50	11.00	11.00
March	8.50	8.00	11.00	11.00
April	9.00	8.50	11.00	11.00
May	10.00	9.00	11.00	11.00
June	10.00	10.00	8.50	8.50
July	10.50	10.00	9.00	9.00
August	12.00	10.50	9.50	9.50
September	12.00	11.00	9.50	9.50
October	11.00	11.00	9.50	9.50
November	11.00	11.00	9.50	9.00
December	11.00	11.00	10.00	9.00
Year	12.00	7.50	11.00	8.50

Twenty-four Years' Prices

	Per pound	
	H.	L.
1923	$11.00	$8.50
1922	12.00	7.50
1921	7.00	3.50
1920	4.50	3.75
1919	4.50	4.25
1918	4.75	4.25
1917	5.00	4.50
1916	5.00	3.75
1915	3.75	2.50
1914	5.00	3.50
1913	4.00	3.62½
1912	5.00	3.50
1911	4.00	2.75
1910	3.37½	2.75
1909	3.25	2.75
1908	4.25	3.00
1907	4.25	2.75
1906	2.75	2.75
1905	3.50	2.75
1904	5.00	3.75
1903	6.50	5.00
1902	6.75	4.75
1901	9.00	6.75
1900	11.00	9.00

Vanilla, Bourbon, Whole

On April 14, 1880, the price was $5 to $8; October 18, 1881, $6 to $10; 1891, $3 to $6; 1901, $4.75 to $8.50; 1911, $3.85 to $4.50; 1913, $3 to $3.75; 1919, August, $3.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.00	$3.00	$2.75	$2.75
February	3.00	3.00	2.75	2.75
March	3.00	3.00	3.50	2.75
April	3.00	3.00	4.50	4.00
May	3.00	3.00	4.50	4.50
June	3.00	3.00	4.50	4.50
July	3.00	2.75	5.00	4.50
August	2.75	2.75	5.00	5.00
September	2.75	2.65	5.00	5.00
October	2.75	2.75	5.00	5.00
November	2.75	2.75	5.00	5.00
December	2.75	2.75	6.00	5.00
Year	3.00	2.65	6.00	2.75

Twenty-four Years' Prices

	Per pound	
	H.	L.
1923	$6.00	$2.75
1922	3.00	2.75
1921	2.75	1.50
1920	3.00	1.75
1919	2.85	2.25
1918	2.75	2.00
1917	2.50	2.00
1916	2.75	2.50
1915	3.50	2.25
1914	4.50	2.75
1913	3.10	2.75
1912	4.50	3.00
1911	3.75	2.75
1910	3.00	2.75
1909	3.00	1.75
1908	3.00	1.50
1907	3.00	1.25
1906	1.50	1.00
1905	1.50	1.00
1904	1.50	1.50
1903	2.50	1.50
1902	3.00	2.50
1901	4.75	3.00
1900	4.50	4.00

Berries

Cubeb, Ordinary

On October 18, 1871, the price was 18c.; 1881, 65c.; 1891, 55c.; 1901, 12c. to 13c.; 1911, 42c. to 44c.; 1913, 38c. to 40c.; 1919, November, $1.40.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.90	$0.82½	$0.80
February	.90	.90	.82½	.82½
March	.90	.90	.82½	.82
April	.90	.90	.82	.82
May	.95	.90	.82	.80
June	.95	.95	.80	.80
July	.95	.95	.80	.73
August	.90	.90	.73	.63
September	.85	.85	.70	.70
October	.85	.82½	.68	.68
November	.82½	.80	.68	.68
December	.82½	.80	.68	.68
Year	.95	.80	.82½	.63

Cubeb XX

On January 12, 1881, the price was 25c.; October 18, 1881, $1; 1891, 85c.; 1901, 14c. to 17c.; 1911, 44c. to 46c.; 1913, 40c. to 42c.; 1920, January, $1.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.00	$1.00	$0.85	$0.85
February	1.00	1.00	.85	.85
March	1.00	1.00	.85	.85
April	1.00	1.00	.85	.85
May	1.05	1.00	.85	.82
June	1.05	1.05	.82	.82
July	1.05	1.05	.82	.75
August	.95	.95	.75	.70
September	.90	.90	.78	.78
October	.90	.85	.78	.78
November	.85	.85	.70	.70
December	.85	.85	.70	.69
Year	1.05	.85	.85	.69

Cubeb, Powdered

On October 18, 1871, the price was 35c.; 1881, $1.35; 1891, 80c.; 1901, 14c. to 17c.; 1911, 44c. to 46c.; 1913, 40c. to 42c.; 1919, November, $1.45.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.95	$0.95	$0.85	$0.85
February	.95	.95	.85	.85
March	.95	.95	.85	.85
April	.95	.95	.85	.85
May	1.00	.95	.85	.85
June	1.00	1.00	.85	.85
July	1.00	1.00	.85	.80
August	.95	.95	.80	.80
September	.90	.90	.80	.78
October	.90	.85	.78	.75
November	.85	.85	.75	.75
December	.85	.85	.75	.75
Year	1.00	.85	.85	.75

Juniper

On January 17, 1872, the price was 4½c. to 5c.; October 18, 1881, 3½c. to 4c.; 1891, 2½c. to 3c.; 1901, 2¾c. to 3c.; 1911, 3¼c. to 3¾c.; 1913, 4c. to 4½c.; 1919, 12c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04	$0.04	$0.03	$0.03
February	.04	.03¾	.03	.03
March	.03¾	.03½	.03	.03
April	.03¾	.03½	.03	.03
May	.03½	.03½	.03	.03
June	.03½	.03½	.03	.03
July	.03½	.03½	.03	.03
August	.03½	.03½	.03	.03
September	.03	.02¾	.03	.03
October	.02½	.02½	.03	.03
November	.02½	.02½	.03	.03
December	.03¼	.03	.02¾	.02½
Year	.04	.02½	.03	.02½

Prickly Ash

On January 19, 1881, the price was 90c. to $1; October 18, 1881, 90c. to $1; 1891, $1; 1901, 45c. to 60c.; 1911, 75c. to 81c.; 1913, 24c. to 30c.; 1919, September, 14c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11	$0.11	$.011	$0.11
February	.11	.11	.11	.11
March	.11	.11	.11	.11
April	.11	.11	.11	.11
May	.11	.11	.11	.11
June	.11	.11	.11	.11
July	.11	.11	.11	.11
August	.11	.11	.11	.11
September	.11	.11	.11	.11
October	.11	.11	.11	.11
November	.11	.11	.11	.11
December	.11	.11	.11	.11
Year	.11	.11	.11	.11

Flowers

Arnica

On November 22, 1871, the price was 10c. to 11c.; October 18, 1881, 9c. to 10c.; 1891, 16c. to 18c.; 1901, 8½c. to 9½c.; 1911, 13c. to 14c.; 1913, 15c. to 16c.; 1917, April, $3.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11	$0.11	$0.14	$0.12
February	.11	.11	.12	.11½
March	.10	.10	.11	.10
April	.10	.10	.09	.09
May	.09½	.09½	.09	.08½
June	.09	.09	.08½	.08
July	.08½	.08½	.08	.08
August	.08½	.08½	.08	.07½
September	.08½	.08	.07½	.07½
October	.09	.08	.08½	.07½
November	.14	.09	.12	.11
December	.14	.14	.12	.11
Year	.14	.08	.14	.07½

Chamomile, Roman

On October 18, 1871, the price was 20c. to 30c.; 1881, 14c. to 16c.; 1891, 20c. to 35c.; 1901, 18c. to 20c.; 1911, 27c. to 35c.; 1913, 21c. to 24c.; 1917, May, $1.35.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.90	$0.85	$1.30	$1.25
February	.90	.80	1.25	1.25
March	.80	.80	1.20	1.20
April	.80	.80	1.20	1.20
May	.80	.75	1.20	1.20
June	.75	.70	1.60	1.20
July	.70	.70	2.00	1.75
August	.70	.65	2.00	2.00
September	.65	.65	2.00	2.00
October	.75	.65	2.00	1.05
November	1.00	.75	1.00	1.00
December	1.25	1.00	1.00	.95
Year	1.25	.65	2.00	.95

Insect Powder

On May 29, 1872, the price was 55c. to 80c.; October 18, 1881, 40c. to 42c.; 1891, 17c. to 24c.; 1901, 15c. to 24c.; 1911, 14c. to 30c.; 1913, 22c. to 40c.; 1920, March, $1.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.38	$0.36	$0.70	$0.70
February	.60	.38	.72	.70
March	.60	.55	.72	.70
April	.53	.53	.70	.70
May	.53	.53	.67	.67
June	.52	.52	.67	.64
July	.52	.52	.60	.56
August	.52	.52	.55	.55
September	.52	.51	.60	.55
October	.51	.51	.62	.60
November	.65	.51	.64	.62
December	.70	.65	.65	.65
Year	.70	.36	.72	.55

Lavender, Ordinary

On June 12, 1872, the price was 5¾c. to 6c.; October 18, 1881, 4c. to 5½c.; 1891, 3c. to 5c.; 1901, 4c. to 5c.; 1911, 7c. to 9c.; 1913, 10c. to 11c.; 1919, January, 27c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.25	$0.20	$0.25	$0.25
February	.25	.20	.25	.25
March	.25	.20	.25	.22
April	.25	.25	.22	.20
May	.25	.25	.20	.20
June	.45	.27	.20	.20
July	.50	.45	.20	.20
August	.50	.50	.20	.20
September	.50	.35	.25	.25
October	.35	.35	.25	.25
November	.30	.30	.25	.25
December	.30	.25	.25	.25
Year	.50	.20	.25	.20

Saffron, American

On November 22, 1871, the price was $1.75 to $2; October 18, 1881, 40c.; 1891, 24c.; 1901, 14c. to 20c.; 1911, 30c. to 32c.; 1913, 60c. to 65c.; 1917, January, 75c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.15	$1.15	$1.40	$1.30
February	1.15	1.15	1.30	1.25
March	1.10	1.10	1.25	1.25
April	1.10	1.10	1.25	1.15
May	1.10	1.05	1.15	1.15
June	1.25	1.05	1.15	1.15
July	1.40	1.20	1.08	1.05
August	1.50	1.40	1.00	1.00
September	1.50	1.40	1.00	1.00
October	1.40	1.40	1.00	1.00
November	1.40	1.40	1.00	.90
December	1.40	1.40	.80	.78
Year	1.50	1.05	1.40	.78

Fourteen Years' Prices

	Per pound	
	H.	L.
1923	$1.40	$0.78
1922	1.50	1.05
1921	1.35	.68
1920	1.00	.33
1919	.40	.33
1918	.48	.39
1917	.75	.45
1916	2.00	.75
1915	1.25	.32
1914	.60	.35
1913	.45	.30
1912	.45	.33
1911	.33	.18
1910	.35	.18

Saffron, Spanish

On November 22, 1871, the price was $13 to $14; October 18, 1881, $17 to $18; 1891, $9.50 to $11.50; 1901, $6.75 to $7; 1911, $10.60 to $11; 1913, $12.25 to $12.75; 1918, July, $16.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$16.75	$15.75	$35.00	$34.00
February	19.00	17.00	46.00	36.00
March	24.00	19.00	46.00	46.00
April	27.00	26.60	46.00	46.00
May	27.00	27.00	46.00	43.00
June	27.00	27.00	41.50	41.00
July	27.00	27.00	38.00	38.00
August	27.00	27.00	36.00	35.00
September	29.00	27.00	35.00	35.00
October	32.00	31.00	35.00	35.00
November	33.00	32.00	35.00	35.00
December	34.00	34.00	35.00	34.00
Year	34.00	15.75	46.00	34.00

Herbs and Leaves

Aconite

On April 2, 1878, the price of powder was 20c. to 21c.; October 18, 1881, 8c. to 10c.; 1891, 10c. to 11c.; 1901, 9c. to 10c.; 1911, 7c. to 8c.; 1913, 7c. to 8c.; 1920, August, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.27	$0.27	$0.16	$0.16
February	.27	.27	.16	.16
March	.27	.27	.16	.16
April	.27	.27	.16	.16
May	.27	.27	.16	.16
June	.18	.18	.16	.16
July	.18	.18	.16	.16
August	.18	.18	.16	.13
September	.18	.18	.13	.12
October	.18	.18	.12	.12
November	.18	.18	.12	.12
December	.20	.20	.12	.12
Year	.27	.18	.16	.12

Belladonna

On April 2 1878, the price of powder was 26c. to 27c.; October 18, 1881, whole, 14c. to 16c.; 1891, 11c. to 15c.; 1901, 14c. to 16c.; 1911, 14c. to 17c.; 1913, 16c.; 1918, February, $1.05.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.11	$0.17	$0.16
February	.11	.11	.17	.17
March	.11	.11	.17	.17
April	.11	.11	.17	.16
May	.11	.11	.17	.17
June	.11	.11	.17	.17
July	.11	.11	.17	.17
August	.11	.11	.18	.17
September	.11	.11	.18	.18
October	.11	.11	.18	.18
November	.15	.12	.18	.18
December	.16	.13½	.20	.18
Year	.16	.11	.20	.16

Buchu, Short

On November 22, 1871, the price of short was 15c. to 16c.; long, 24c. to 26c.; October 18, 1881c, short, 18c. to 20c.; long, 47c. to 50c.; 1891, short, 11c. to 20c.; long, 65c.; 1901, short, 26c. to 28c.; long, 75c.; 1911, short, $1.10 to $1.15; long, 65c. to 70c.; 1913, short, $1.30 to $1.35; long, $1.30 to $1.35; 1920, short, June, $4; long, October, $3.30.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.12	$1.05	$1.10	$1.10
February	1.05	1.00	1.10	1.00
March	.95	.95	.95	.90
April	.95	.95	.90	.85
May	.85	.85	1.00	.87
June	1.05	.87	.95	.90
July	1.10	1.05	.90	.90
August	1.10	1.00	.90	.90
September	.95	.92	.90	.90
October	.92	.90	.90	.89
November	1.00	1.00	.88	.87
December	1.10	1.05	.86	.85
Year	1.12	.85	1.10	.85

Twelve Years' Prices

	Per pound	
	H.	L.
1923	$1.10	$0.85
1922	1.12	.85
1921	2.60	1.15
1920	4.00	2.35
1919	3.25	1.75
1918	2.60	1.15
1917	1.35	1.15
1916	1.30	1.15
1915	1.55	1.05
1914	1.85	1.30
1913	1.50	1.25
1912	1.65	.95

Cannabis, Domestic, U. S. P.

On May 8, 1899, the price was 14c. to 15½c.; October 18, 1901, 50c. to 55c.; 1911, $1.25 to $1.30; 1913, $1.45; 1918, January, $1.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.30	$0.30	$2.00	$1.00
February	.30	.30	2.00	1.00
March	.30	.30	2.00	2.00
April	.30	.30	2.00	1.90
May	.45	.30	1.90	1.85
June	.45	.30	1.85	1.70
July	.30	.30	1.70	1.70
August	.30	.30	1.70	1.70
September	.30	.30	1.70	1.40
October	1.25	.30	1.40	1.40
November	2.00	1.25	1.40	1.35
December	2.00	2.00	1.35	1.35
Year	2.00	.30	2.00	1.00

Deer Tongue

On April 2, 1878, the price was 8c.; October 18, 1881, 7c. to 8c.; 1901, 3c. to 4c.; 1911, 8c. to 9c.; 1913, 7½c. to 8c.; 1918, February, 25c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.07½	$0.07½	$0.08	$0.07½
February	.07½	.07½	.07½	.07½
March	.07½	.07½	.07½	.07½
April	.07½	.07½	.08	.07½
May	.07½	.07½	.09	.09
June	.07½	.07½	.11	.10
July	.07½	.07½	.11½	.11
August	.07½	.07½	.11½	.11½
September	.07½	.07½	.11½	.11
October	.07½	.07½	.11	.11
November	.07½	.07½	.11	.10
December	.08	.07½	.11	.10
Year	.08	.07½	.11½	.07½

Pennyroyal

On December 20, 1897, the price was 8½c.; October 18, 1901, 6½c.; 1911, 4c. to 5c.; 1918, January, 18c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.07	$0.07
February	.08	.08	.07	.07
March	.08	.08	.07	.07
April	.08	.08	.08	.07
May	.08	.08	.08	.08
June	.08	.08	.08	.08
July	.08	.08	.08	.08
August	.08	.08	.08	.08
September	.08	.08	.08	.08
October	.08	.08	.08	.08
November	.08	.08	.08	.08
December	.08	.07	.08	.08
Year	.08	.07	.08	.07

Peppermint

On April 2, 1878, the price was 10c.; October 18, 1881, 10c.; 1901, 10c.; 1911, 8c. to 8½c.; 1913, 11c. to 12c.; 1918, June, 30c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.16	$0.16	$0.15	$0.12
February	.16	.16	.17	.15
March	.16	.16	.17	.17
April	.23	.16	.18	.17
May	.23	.23	.15	.15
June	.23	.17	.15	.15
July	.17	.17	.15	.15
August	.17	.17	.15	.15
September	.17	.17	.15	.15
October	.17	.17	.15	.15
November	.17	.15	.15	.12
December	.15	.15	.12	.12
Year	.23	.15	.18	.12

Henbane

On April 2, 1878, the price of powder was 22c.; October 18, 1881, whole, 12c. to 14c.; 1891, 10c.; 1901, 9c. to 12c.; 1911, 9c. to 10c.; 1913, 6½c. to 7c.; 1918, $2.10.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.22	$0.22	$0.42	$0.42
February	.22	.22	.42	.40
March	.22	.22	.40	.40
April	.45	.22	.37	.37
May	.65	.45	.37	.35
June	.65	.65	.35	.35
July	.65	.65	.35	.35
August	.65	.55	.35	.35
September	.55	.48	.35	.35
October	.48	.42	.35	.35
November	.45	.42	.35	.35
December	.45	.42	.35	.35
Year	.65	.22	.42	.35

Laurel, Good

On April 2, 1878, the price of ground was 10c.; October 18, 1881, whole, 3c. to 5c.; 1891, 3½c. to 4c.; 1901, 3c. to 4c.; 1911, 3¼c. to 3½c.; 1913, 3½c. to 3¾c.; 1918, April, 16c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.03¼	$0.03¼	$0.04¾	$0.04¾
February	.03½	.03¼	.05	.04¾
March	.03¼	.03½	.05	.05
April	.03½	.03½	.05	.04½
May	.06	.04	.04½	.04½
June	.06½	.05½	.04½	.04½
July	.06	.05	.04½	.04½
August	.04¾	.04¾	.04¾	.04¼
September	.04¾	.04¾	.04¾	.04¾
October	.04¾	.04¾	.04¾	.04¾
November	.04¾	.04¾	.04¾	.04¼
December	.04¾	.04¾	.04¼	.04¼
Year	.06½	.03¼	.05	.04¼

Prince's Pine

On October 18, 1871, the price was 3½c. to 4c.; 1881, 8c. to 9c.; 1891, 8c.; 1901, 8c.; 1911, 8c. to 10c.; 1913, 8c. to 10c.; 1918, October, 50c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.16	$0.15
February	.14	.14	.16	.16
March	.14	.14	.16	.16
April	.14	.14	.16	.16
May	.14	.14	.16	.16
June	.14	.14	.16	.16
July	.14	.14	.30	.16
August	.14	.14	.30	.30
September	.14	.14	.35	.30
October	.14	.14	.35	.35
November	.15	.14	.35	.35
December	.15	.15	.35	.35
Year	.15	.14	.35	.15

Sage, Greek

On March 26, 1873, the price was 3½c. to 4c.; October 18, 1881, Italian, 2¼c. to 2½c.; 1891, Italian, 5½c. to 8c.; 1901, Italian, 3¾c. to 3⅝c.; 1911, Italian, 3¼c. to 4c.; 1913, Greek, 3c. to 4c.; 1918, November, 36c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.04	$0.03¾	$0.04	$0.04
February	.04	.04	.04½	.03¾
March	.04	.03	.04½	.04½
April	.03½	.03½	.04½	.04
May	.03½	.03½	.04	.04
June	.03	.02¾	.04	.04
July	.03	.02¾	.04½	.04
August	.03½	.03	.04¼	.04¼
September	.03½	.03½	.04¼	.04¼
October	.04¾	.03½	.04¼	.04¼
November	.03½	.03½	.04¾	.04½
December	.04	.03½	.04¾	.04¼
Year	.04¾	.02¾	.04¾	.03¾

Senna, Tinnevelly

On October 18, 1871, the price was 16c.; 1881, 11c. to 15c.; 1891, 5c. to 18c.; 1901, 6¼c. to 14c.; 1911, 6c. to 12c.; 1913, 7c. to 9c.; 1919, November, 17c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.04	$0.06	$0.06
February	.04	.04	.06	.05
March	.04	.04	.06	.06
April	.04	.04	.06	.05½
May	.04	.04	.05½	.05½
June	.04	.04	.05½	.05½
July	.04	.04	.05½	.05½
August	.04	.04	.05½	.05½
September	.04	.04	.05½	.05½
October	.05½	.04	.05½	.05½
November	.05½	.05½	.05½	.05½
December	.06	.05½	.06	.06
Year	.06	.04	.06	.05

Uva Ursi

On May 29, 1872, the price was 6c. to 7c.; October 18, 1881, 4c. to 5½c.; 1891, 5c. to 7c.; 1901, 3½c. to 5c.; 1911, 3¾c. to 4c.; 1913, 3½c. to 4c.; 1918, May, 24c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.04	$0.05½	$0.05½
February	.09	.08	.05½	.05½
March	.13	.09	.05½	.05½
April	.13	.07	.05½	.05½
May	.06½	.06	.05½	.05½
June	.06	.05½	.05½	.05½
July	.05½	.05½	.05½	.05½
August	.05½	.05½	.05½	.05½
September	.05½	.05½	.05½	.05½
October	.05½	.05½	.05½	.05½
November	.05½	.05½	.05½	.05½
December	.05½	.05½	.05½	.05½
Year	.13	.04	.05½	.05½

Roots

Aconite, U. S. P.

On February 25, 1874, the price was 14c.; October 18, 1881, 10c. to 12c.; 1891, 13c. to 15c.; 1901, 13c. to 14c.; 1911, 10½c. to 11c.; 1913, 13c. to 15c.; 1919, December, 90c.

	Per pound			
	1922.		1923.	
	H	L.	H.	L.
January	$0.20	$0.20	$0.35	$0.35
February	.20	.20	.45	.35
March	.20	.20	.45	.35
April	.23	.20	.35	.35
May	.22	.22	.38	.35
June	.21	.21	.38	.38
July	.25	.21	.40	.38
August	.25	.23	.50	.40
September	.23	.23	.45	.45
October	.24	.23	.45	.45
November	.24	.24	.45	.45
December	.35	.25	.45	.45
Year	.35	.20	.50	.35

Aletris

On January 12, 1881, the price was 35c. to 40c.; October 18, 1881, 35c. to 40c.; 1901, 16c.; 1911, 20c. to 22c.; 1913, 20c. to 21c.; 1920, March, $1.25.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.34	$0.34	$0.60	$0.60
February	.34	.32	.60	.60
March	.32	.30	.60	.58
April	.30	.30	.58	.58
May	.30	.30	.55	.55
June	.30	.30	.55	.55
July	.30	.30	.55	.55
August	.55	.35	.55	.55
September	.55	.53	.60	.55
October	.55	.53	.60	.60
November	.60	.55	.60	.60
December	.60	.58	.60	.55
Year	.60	.30	.60	.55

Belladonna

On December 22, 1875, the price was 18c.; October 18, 1881, 10c. to 12c.; 1891, 6c. to 12c.; 1901, 10c. to 11c.; 1911, 10½c. to 11c.; 1913, 9c. to 10c.; 1917, December, $4.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.11	$0.11
February	.12	.12	.12	.11
March	.12	.12	.12	.11
April	.12	.12	.11	.11
May	.12	.11	.11	.11
June	.11	.11	.11	.11
July	.13	.11	.11	.11
August	.13	.12	.11	.11
September	.12	.12	.11	.11
October	.12	.12	.11	.11
November	.12	.10	.11	.11
December	.10	.10	.11	.11
Year	.14	.10	.12	.11

Blood

On April 28, 1875, the price of crushed was 10c.; October 18, 1881, 6c. to 6½c.; 1891, 4½c. to 6c.; 1901, 5c. to 6c.; 1911, 8c. to 8½c.; 1913, 8½c. to 9c.; 1918, November, 80c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.14	$0.14	$0.13	$0.13
February	.14	.14	13	.13
March	.14	.14	.13	.13
April	.14	.14	.13	.12½
May	.14	.14	.12½	.12½
June	.14	.14	.12½	.12
July	.14	.14	.13	.12½
August	.14	.14	.13	.13
September	.14	.13	.14	.13
October	.13	.13	.13	.14
November	.13	.13	.14	.14
December	.13	.13	.14	.14
Year	.14	.13	.14	.12

Colombo, Whole

On November 22, 1871, the price was 13c. to 14c.; October 18, 1881, 9½c. to 10c.; 1891, 5c. to 10c.; 1901, 8c. to 12c.; 1911, 8c. to 10c.; 1913, 6c. to 7c.; 1918, September, 30c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.03	$0.03	$0.01	$0.01
February	.03	.03	.01	.01
March	.03	.03	.02	.02
April	.03	.03	.02	.01
May	.03	.03	.01	.01
June	.03	.03	.01	.01
July	.03	.03	.01	.01
August	.03	.03	.01	.01
September	.03	.03	.02	.01
October	.03	.03	.02	.02
November	.03	.03	.02	.02
December	.03	.01	.02	.02
Year	.03	.01	.02	.01

Gentian, Whole

On November 22, 1871, the price was 5½c. to 6c.; October 18, 1881, 4½c. to 4¾c.; 1891, 3¾c. to 4½c.; 1901, 4c. to 4¼c.; 1911, 6c. to 6½c.; 1913, 6½c. to 6¾c.; 1918, November, 18c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.09	$0.08¼
February	.08	.08	.08½	.08¼
March	.08	.08	.08½	.08½
April	.08	.08	.08¾	.08½
May	.08	.08	.08½	.08½
June	.08½	.08	.08½	.08½
July	.08½	.08½	.08½	.08½
August	.08½	.08½	.08½	.08½
September	.08½	.08½	.09	.09
October	.08½	.08½	.09	.08½
November	.08½	.08	.08½	.08
December	.08½	.08	.08	.08
Year	.08½	.08	.09	.08

Golden Seal

On February 25, 1874, the price was 14c.; October 18, 1881, 15c. to 16c.; 1891, 24c. to 26c.; 1901, 55c. to 60c.; 1911, $5.25 to $5.50; 1913, $4.90 to $5; 1917, April, $5.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.25	$3.00	$3.20	$3.20
February	3.00	3.00	3.20	3.20
March	3.00	3.00	3.35	3.20
April	3.25	3.20	3.35	3.20
May	3.25	3.20	3.40	3.30
June	3.50	3.40	3.40	3.35
July	3.60	3.50	3.50	3.35
August	3.60	3.50	3.65	3.60
September	3.55	3.50	3.60	3.40
October	3.50	3.45	3.40	3.40
November	3.35	3.25	3.40	3.40
December	3.25	3.20	3.40	3.40
Year	3.60	3.00	3.65	3.20

Twelve Years' Prices

	Per pound	
	H.	L.
1923	$3.65	$3.20
1922	3.60	3.00
1921	5.00	3.10
1920	6.50	4.85
1919	6.00	5.25
1918	5.35	4.90
1917	5.75	5.00
1916	5.50	4.25
1915	4.85	4.20
1914	4.90	4.20
1913	5.00	3.90
1912	5.25	4.00

Hellebore, White, Powdered

On May 28, 1875, the price was 15c.; October 18, 1881, whole, 6c. to 7c.; 1891, 8c. to 12c.; 1901, 7c. to 7½c.; 1911, 7½c. to 8c.; 1913, 10c. to 11c.; 1918, February, 24c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.15	$0.15	$0.16	$0.15
February	.15	.15	.16	.16
March	.14	.14	.16	.16
April	.14	.14	.16	.14
May	.14	.14	.16	.16
June	.16	.15	.16	.16
July	.16	.16	.16	.16
August	.15½	.15	.16	.16
September	.15	.15	.16	.16
October	.14	.12	.16	.15
November	.16	.14	.15	.15
December	.16	.15	.15	.12¾
Year	.16	.12	.16	.12¾

Ipecac, Cartagena

On October 18, 1871, the price of Rio was $1.27½; 1881, $1.10 to $1.15; 1891, $2 to $2.15; 1901, $2.70 to $2.80; 1911, $2.25 to $2.30; 1913, $2.10; 1918, November, $4.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.35	$1.25	$1.75	$1.50
February	1.50	1.25	1.90	1.80
March	1.75	1.50	1.90	1.90
April	1.75	1.75	1.80	1.80
May	1.75	1.65	1.80	1.75
June	1.60	1.55	1.75	1.75
July	1.55	1.55	1.75	1.75
August	1.55	1.55	1.75	1.75
September	1.55	1.55	1.75	1.75
October	1.55	1.55	1.85	1.85
November	1.55	1.50	2.10	2.00
December	1.50	1.50	2.10	2.10
Year	1.75	1.25	2.10	1.50

Ipecac, Rio

On October 18, 1871, the price of Rio was $1.27½; 1881, $1.10 to $1.15; 1891, $2 to $2.15; 1901, $2.70 to $2.80; 1911, $2.25 to $2.30; 1913, $2.10; 1918, November, $4.75.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$1.35	$1.35	$1.75	$1.55
February	Nominal		1.90	1.80
March	1.90	1.90	1.90	1.90
April	1.90	1.90	1.80	1.80
May	1.90	1.90	1.80	1.80
June	1.65	1.50	1.80	1.80
July	1.65	1.55	1.80	1.80
August	1.55	1.55	1.80	1.80
September	1.55	1.55	1.80	1.80
October	1.55	1.55	1.85	1.80
November	1.55	1.55	2.00	2.00
December	1.50	1.50	2.00	1.95
Year	1.90	1.35	2.00	1.55

Rio, Thirteen Years' Prices

	Per pound	
	H.	L.
1923	$2.00	$1.55
1922	1.90	1.35
1921	2.50	1.35
1920	3.50	2.50
1919	4.00	2.50
1918	4.75	3.00
1917	3.10	2.00
1916	2.65	2.55
1915	5.50	1.70
1914	2.00	1.42½
1913	2.20	1.75
1912	2.35	1.45
1911	2.30	1.75

Jalap

On October 18, 1871, the price was 40c.; 1881, 18c. to 20c.; 1891, 50c. to 52½c.; 1901, 12c. to 14c.; 1911, 33c. to 35c.; 1913, 15c. to 16c.; 1919, August, 80c.

	Per pound			
	1922.		1923	
	H.	L.	H.	L.
January	$0.15	$0.13	$0.34	$0.34
February	.15	.15	.34	.34
March	.15	.15	.34	.34
April	.18	.15	.34	.31
May	.18	.18	.31	.31
June	.18	.18	.31	.31
July	.18	.17	.31	.30
August	.20	.17	.30	.30
September	.19	.19	.30	.30
October	.22	.19	.30	.30
November	.30	.25	.33	.33
December	.34	.30	.33	.33
Year	.34	.13	.34	.30

Thirteen Years' Prices

	Per pound	
	H.	L.
1923	$0.34	$0.30
1922	.34	.13
1921	.35	.13
1920	.80	.35
1919	.80	.50
1918	.62	.47
1917	.50	.12
1916	.12	.08¾
1915	.10	.08
1914	.20	.10
1913	.23	.13
1912	.26	.22
1911	.40	.22

Licorice

On November 22, 1871, the price was 8c.; October 18, 1881, 5c. to 6c.; 1891, 3½c. to 5c.; 1901, 3¼c. to 4c.; 1911, 4c. to 4½c.; 1913, 4½c. to 5½c.; 1918, May, 34c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.06	$0.08½	$0.07½
February	.06	.06	.07½	.07½
March	.06	.06	.07½	.07½
April	.06	.06	.07½	.07½
May	.06	.06	.07½	.07½
June	.06	.06	.07½	.07½
July	.07	.06	.07½	.07½
August	.07	.06½	.07½	.07½
September	.06½	.06½	.07½	.07½
October	.08	.06½	.07½	.07½
November	.08	.08	.07½	.06
December	.08½	.08	.06	.06
Year	.08½	.06	.08½	.06

Mandrake

On April 14, 1875, the price was 6c. to 7c.; October 18, 1881, 5c. to 6c.; 1891, 3½c. to 4¼c.; 1901, 4c. to 5c.; 1911, 6c. to 6½c.; 1913, 7c. to 7½c.; 1920, February, 42c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.11½	$0.11½	$0.17	$0.16
February	.11½	.11½	.18½	.17
March	.12	.11½	.18½	.18
April	.12	.12	.16½	.16
May	.12	.12	.16	.16
June	.11	.11	.17	.16
July	.11	.11	.18	.17
August	.15	.11	.17	.17
September	.17	.16	.20	.17
October	.17	.16	.20	.20
November	.17	.16	.20	.20
December	.16	.16	.20	.20
Year	.17	.11	.20	.16

Orris, Florentine, Whole

On November 22, 1871, the price was 15c. to 16c.; October 18, 1881, 15c. to 19c.; 1891, 35c. to 40c.; 1901, 9c. to 11½c.; 1911, 9½c. to 10c.; 1913, 15½c. to 16½c.; 1918, October, 29c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.08	$0.08	$0.06	$0.06
February	.08	.08	.07	.07
March	.08	.08	.07	.07
April	.08	.08	.07	.07
May	.08	.08	.07	.07
June	.08	.07	.07	.07
July	.07	.07	.07	.07
August	.07	.07	.07	.07
September	.07	.07	.07	.07
October	.07	.07	.07	.07
November	.07	.07	.07	.07
December	.07	.06	.07	.07
Year	.08	.06	.07	.06

Orris, Verona

On January 17, 1872, the price was 14c.; October 18, 1881, 8c. to 10c.; 1891, 14c. to 17c.; 1901, 4c. to 6c.; 1911, 9c. to 9½c.; 1913, 13½c. to 14½c.; 1918, November, 28c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.06	$0.06	$0.06	$0.05
February	.06	.06	.05½	.05½
March	.06	.06	.05	.05
April	.06	.06	.05½	.05
May	.06	.06	.05	.05
June	.06	.05	.05	.05
July	.05	.05	.05	.05
August	.05	.05	.05	.05
September	.05	.05	.05	.05
October	.05	.05	.05	.05
November	.05	.05	.05	.05
December	.06	.05	.05	.05
Year	.06	.05	.06	.05

Pink, True

On November 25, 1874, the price was 20c.; October 18, 1881, 25c. to 30c.; 1891, 24c. to 25½c.; 1901, 20c. to 22c.; 1911, 30c. to 40c.; 1913, 45c. to 75c.; 1920, March, $4.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.75	$0.75	$1.05	$1.05
February	.75	.75	1.05	1.05
March	.75	.75	1.10	1.10
April	.75	.75	1.10	1.10
May	.75	.75	1.10	1.00
June	.75	.70	1.00	1.00
July	.70	.70	1.10	1.00
August	.70	.70	1.00	1.00
September	.95	.80	1.00	1.00
October	.95	.95	1.00	1.00
November	1.15	1.00	1.00	1.00
December	1.05	1.05	1.00	1.00
Year	1.15	.70	1.10	1.00

Rhubarb, High Dried

On October 18, 1871, the price was 55c.; 1881, 18c. to $1; 1890, 30c. to 70c.; 1901, 17½c. to 25c.; 1911, 16c. to 17c.; 1913, 16c. to 17c.; 1919, December, $1.90.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.60	$0.43	$0.45	$0.40
February	.70	.60	.40	.40
March	.80	.70	.40	.40
April	.80	.70	.40	.37
May	.70	.60	.43	.37
June	.60	.55	.43	.43
July	.55	.55	.43	.43
August	.55	.49	.43	.40
September	.49	.45	.40	.38
October	.45	.45	.38	.38
November	.45	.45	.38	.38
December	.45	.45	.34	.34
Year	.80	.43	.45	.34

Sarsaparilla, Mexican

On October 18, 1871, the price was 17c.; 1881, 9⅝c. to 10½c.; 1891, 14c. to 15c.; 1901, 7c. to 7¼c.; 1911, 16c.; 1913, 18c. to 19c.; 1918, March, 70c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.43	$0.42	$0.23	$0.22
February	.43	.43	.22	.22
March	.45	.43	.28	.23
April	.45	.43	.29	.26
May	.41	.40	.35	.30
June	.40	.37	.35	.35
July	.37	.36	.35	.30
August	.36	.35	.32	.28
September	.33	.30	.30	.28
October	.29	.25	.28	.27
November	.25	.24	.27	.27
December	.23	.23	.27	.26
Year	.45	.23	.35	.22

Fourteen Years' Prices

	Per pound	
	H.	L.
1923	$0.35	$0.22
1922	.45	.23
1921	.43	.38
1920	.47	.36
1919	.55	.30
1918	.70	.32
1917	.60	.13½
1916	.13	.10½
1915	.15	.09
1914	.50	.10
1913	.28	.14
1912	.19	.11
1911	.18½	.09
1910	.11	.08¾

Senega

On October 18, 1871, the price was $1.60; 1881, 57½c. to 60c.; 1891, 40c.; 1901, 57c.; 1911, 55c. to 57½c.; 1913, 66c. to 68c.; 1920, January, $2.50.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.80	$0.75	$0.75	$0.75
February	1.10	.75	.74	.74
March	1.10	1.10	.74	.74
April	1.00	1.00	.74	.67
May	1.10	1.00	.67	.65
June	.95	.90	.65	.63
July	.80	.74	.65	.60
August	.80	.75	.60	.60
September	.75	.75	.60	.60
October	.80	.75	.65	.62
November	.77	.75	.65	.65
December	.77	.75	.65	.65
Year	1.10	.74	.75	.60

Fourteen Years' Prices

	Per pound	
	H.	L.
1923	$0.75	$0.60
1922	1.10	.74
1921	.90	.60
1920	2.50	.90
1919	2.40	.90
1918	1.05	.80
1917	.85	.60
1916	.68	.40
1915	.45	.35
1914	.50	.38
1913	.80	.63
1912	.65	.59
1911	.60	.42
1910	.60	.43

Squills, White

On November 22, 1871, the price was 6c. to 6½c.; October 18, 1881, 6c. to 7c.; 1891, 5½c. to 7½c.; 1901, 3¾c. to 4c.; 1911, 3¾c. to 5c.; 1913, 6c. to 8c.; 1918, November, 16c.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.05	$0.05	$0.04	$0.04
February	.05	.05	.04	.04
March	.05	.04½	.04	.04
April	.04½	.04½	.04	.04
May	.04½	.04½	.04	.04
June	.04½	.04½	.04	.04
July	.04½	.04½	.04	.04
August	.04½	.04	.04	.04
September	.04	.04	.04	.04
October	.04	.04	.04	.04
November	.04	.04	.04	.04
December	.04	.04	.04	.04
Year	.05	.04	.04	.04

Valerian, Belgian

On November 22, 1871, the price was 20c. to 35c.; October 18, 1881, German, 12c. to 13½c.; 1891, 7½c. to 8c.; 1901, 5½c. to 6c.; 1911, 13c. to 13½c.; 1913, 9½c. to 10c.; 1919, January, $1.65.

	Per pound			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.10	$0.10	$0.13	$0.12
February	.09	.09	.12½	.12½
March	.09	.09	.12½	.10½
April	.09	.09	.11½	.11½
May	.09	.09	.11½	.11½
June	.10	.09	.11½	.11½
July	.13	.11	.11½	.10½
August	.14	.13	.10½	.10½
September	.13	.13	.10	.10
October	.13	.13	.10	.10
November	.13	.12	.10	.10
December	.12	.12	.10	.08
Year	.14	.09	.13	.08

Seeds

Anise, Spanish

On November 22, 1871, the price of German was 14c.; October 18, 1881, 9c. to 10c.; 1891, German, 5½c. to 7c.; 1901, Russian, 5½c. to 6c.; 1911, Spanish, 8¼c. to 9c.; 1913, 8½c. to 9½c.; 1917, February, 30c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.16	$0.15½	$0.25½	$0.19½
February	.16	.16	.25½	.25
March	.17	.16¼	.28	.25½
April	.17½	.17¼	.28	.28
May	.17¼	.17	.28	.27½
June	.18	.17¼	.27	.26½
July	.18½	.18¼	.28½	.26½
August	.19	.18½	.29½	.26½
September	.18½	.18¼	.23½	.18
October	.18¼	.18	.17	.16½
November	.19	.18¼	.16	.15½
December	.19½	.19	.16	.15½
Year	.19½	.15½	.29½	.15½

Canary, South American

On June 12, 1871, the price of Spanish seed was 3½c.; October 18, 1881, 4c. to 4¼c.; 1891, 2½c. to 2¾c.; 1901, Smyrna, 2¾c. to 2½c.; 1911, Smyrna, 3¼c. to 3¾c.; 1913, Smyrna, 5½c. to 5¾c.; 1918, September, Spanish, 25c.; 1920, nominal; 1921, nominal. On May 28, 1906, the price of South American seed was 4c.; October 18, 1911, 3½c. to 3¾c.; 1913, 5½c. to 5¾c.; 1918, September, 25c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.03½	$0.03¼	$0.05	$0.05
February	.04	.03½	.05	.05
March	.04½	.04½	.05	.05
April	.04½	.04½	.05	.05
May	.04½	.04½	.05¼	.05
June	.04½	.04	.05½	.05¼
July	.04	.03¾	.05½	.05½
August	.04	.03¾	.05½	.05½
September	.04	.04	.05½	.05½
October	.04¾	.04¼	.05½	.05½
November	.04½	.04½	.05½	.05½
December	.05	.04½	.05½	.05¼
Year	.05	.03¼	.05½	.05

Cardamom, Bleached

On October 18, 1871, the price was $2.80 to $2.85; 1881, $2 to $2.25; 1891, 60c. to 80c.; 1901, 55c. to 85c.; 1911, 62c. to $1.25; 1913, $1.25 to $1.75; 1919, December, $2.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.60	$0.50	$0.85	$0.85
February	.50	.50	.95	.85
March	.50	.50	.95	.95
April	.50	.50	1.00	1.00
May	.50	.50	1.00	1.00
June	.50	.50	1.00	1.00
July	.55	.50	1.00	1.00
August	.60	.55	1.00	1.00
September	.85	.68	1.00	1.00
October	.85	.85	1.00	1.00
November	.85	.85	1.40	1.00
December	.85	.85	1.40	1.40
Year	.85	.50	1.40	.85

Caraway, African

On October 18, 1871, the price was 11½c.; 1881, Dutch, 6¾c. to 7c.; 1891, 5c. to 5¼c.; 1901, Dutch, 5½c. to 6c.; 1911, Dutch, 6½c. to 7c.; 1913, 7¼c. to 7½c.; 1918, November, 69c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.07½	$0.07½	$0.28½	$0.28
February	.09	.07½	.28½	.27
March	.09½	.09¼	.28	.28
April	.09½	.09½	.28	.27
May	.09¾	.09½	.27	.26½
June	.13	.09¾	.26½	.24
July	Nominal		.24	.18
August	Nominal		.17½	.16½
September	Nominal		.24	.17
October	Nominal		.25	.24
November	Nominal		.25	.25
December	Nominal		.24¾	.23½
Year	.13	.07½	.28½	.16½

Thirteen Years' Prices

	Per pound H.	Per pound L.
1923	$0.28½	$0.16½
1922	.13	.07½
1921	.09	.06¼
1920	.12	.09
1919	.52	.52
1918	.69	.52
1917	.65	.52
1916	.51	.10¾
1915	.13½	.08½
1914	.15	.07
1913	.07¼	.05¾
1912	.08	.05¾
1911	.06½	.05

Celery

On October 7, 1879, the price was 15c. to 16c.; October 18, 1881, 12½c. to 14c.; 1891, 17c.; 1901, 7½c. to 8c.; 1911, 20c. to 23c.; 1913, 12c. to 13c.; 1918, October, 70c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.13¼	$0.13	$0.24	$0.23½
February	.15½	.13¼	.24	.23
March	.18	.16¼	.23¼	.23
April	.19½	.18½	.23½	.23
May	.23½	.21	.23	.22¼
June	.23	.21¼	.22	.21½
July	.21½	.20¾	.21½	.21
August	.20	.20	.20½	.19¼
September	.20	.19	.22	.19½
October	.20	.20	.20	.23
November	.23	.20	.30	.27
December	.23½	.23	.27	.25
Year	.23½	.13	.30	.19¼

Twelve Years' Prices

	Per pound H.	Per pound L.
1923	$0.30	$0.19¼
1922	.23½	.13
1921	.15	.12
1920	.32	.15
1919	.55	.32
1918	.70	.26½
1917	.30	.18
1916	.30	.18¼
1915	.35	.14
1914	.40	.14
1913	.45	.12
1912	.30	.15

Coriander, Bleached

On October 18, 1871, the price was 9c.; 1881, 5c. to 6c.; 1891, 3¼c. to 4c.; 1901, 3c. to 3½c.; 1911, 3¾c. to 4c.; 1913, 6¼c. to 6½c.; 1917, June, 25½c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.06	$0.05½	$0.16	$0.15
February	.08½	.08½	.15	.15
March	.08½	.08½	.15	.15
April	.08½	.08½	.15	.15
May	.08½	.08½	.15	.15
June	.08½	.08½	.15	.15
July	.09	.08½	.15	.14¾
August	.09½	.09	.14¾	.14¾
September	.15	.13	.15	.15
October	.16	.15	.15	.15
November	.16	.16	.15	.15
December	.16	.16	.15	.14½
Year	.16	.05½	.16	.14½

Fenugreek

On November 22, 1871, the price for powdered seed was 6c. to 7c.; October 18, 1881, whole seed, 3½c. to 4c.; 1891, 2¼c. to 2¾c.; 1901, 1¾c. to 2c.; 1911, 2½c. to 2¾c.; 1913, 3c. to 3½c.; 1918, May, 15c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.03	$0.02¾	$0.07¾	$0.07
February	.02¾	.02½	.07¾	.07¾
March	.03½	.02¾	.07¾	.07¾
April	.03¾	.03½	.07¾	.06¼
May	.04	.03¾	.03¼	.06¼
June	.03¾	.03¾	.06¼	.06
July	.04½	.04	.07	.05½
August	.04½	.04¼	.05½	.05¼
September	.04¾	.04¼	.05¼	.05¼
October	.05½	.05	.05½	.05¼
November	.05½	.05½	.05¾	.04½
December	.07	.05½	.05¾	.05¼
Year	.07	.02½	.07¾	.04½

Mustard, California, Brown

On October 18, 1871, the price was 13c. to 15c.; 1881, 6c.; 1891, 4¾c. to 5c.; 1901, 4¼c. to 5c.; 1911, 6¼c. to 6½c.; 1913, 4¾c. to 5c.; 1918, November, 31c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.05¼	$0.04¾	$0.09¼	$0.09
February	.05	.04¾	.09¼	.09¼
March	.06	.05¼	.09¾	.09¼
April	.06¼	.06	.09½	.09½
May	.06¼	.06	.09¾	.09½
June	.07	.05¾	.09½	.08¾
July	.07⅝	.07¼	.08¾	.08½
August	.07½	.07½	.08½	.08½
September	.07⅝	.07½	.09½	.08½
October	.07⅝	.07¾	.09½	.08½
November	.07¾	.07¾	.09¾	.09½
December	.08⅝	.07¾	.09¾	.09¾
Year	.08⅝	.04¾	.09¾	.08½

Stramonium

On April 2, 1878, the price of powder was 18c. to 20c.; October 18, 1881, whole, 8c. to 9c.; 1901, 9c.; 1911, 8c. to 8½c.; 1913, 8c. to 8½c.; 1918, June, 45c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14	$0.14	$0.13	$.013
February	.14	.14	.13	.13
March	.14	.14	.13	.12
April	.14	.14	.12	.12
May	.14	.14	.12	.11
June	.14	.13	.11	.11
July	.13	.13	.11	.11
August	.13	.13	.11	.10
September	.13	.13	.10	.10
October	.13	.13	.10	.10
November	.13	.13	.10	.10
December	.13	.13	.10	.10
Year	.14	.13	.13	.10

Worm, American

On April 2, 1878, the price of powder was 12c. to 15c.; October 18, 1881, whole, 5c. to 6c.; 1901, 9½c. to 10c.; 1911, 6c. to 7c.; 1913, 10c. to 11c.; 1920, August, 30c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.10	$0.10	$0.10	$0.10
February	.10	.10	.10	.10
March	.10	.10	.10	.10
April	.10	.10	.10	.10
May	.10	.10	.10	.10
June	.10	.10	.10	.10
July	.10	.10	.10	.10
August	.10	.10	.10	.10
September	.10	.10	.10	.10
October	.10	.10	.10	.10
November	.10	.10	.10	.10
December	.10	.10	.10	.10
Year	.10	.10	.10	.10

Worm, Levant

On April 2, 1878, the price of powder was 26c. to 27c.; October 18, 1881, whole, 10½c. to 11c.; 1901, 8c. to 10c.; 1911, 19c. to 20c.; 1913, 30c. to 33c.; 1920, July, $1.45.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$1.65	$1.45	$3.25	$3.25
February	1.65	1.65	3.25	3.25
March	1.75	1.75	3.25	3.25
April	2.00	1.90	4.00	3.25
May	2.25	2.25	3.65	3.65
June	2.25	2.25	3.65	3.65
July	2.25	2.25	3.65	3.50
August	3.00	2.25	3.50	3.50
September	3.00	2.75	3.50	3.50
October	3.50	3.50	3.50	3.50
November	3.50	3.50	3.50	3.50
December	3.50	3.25	4.00	3.50
Year	3.50	1.45	4.00	3.25

Spices

Clove, Zanzibar

On May 28, 1875, the price for ground was 41c. to 50c.; October 18, 1881, 29c. to 30c.; 1891, 8c. to 8¼c.; 1901, 8c. to 8¾c.; 1911, 16½c. to 17c.; 1913, 16½c. to 16¾c.; 1919, December, 55c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.35½	$0.34	$0.26	$0.23
February	.32½	.32	.27	.24
March	.32½	.31½	.28	.25
April	.31½	.30	.27	.26
May	.30	.29½	.27	.25½
June	.29	.28	.28	.26½
July	.29	.27	.30½	.30
August	.31½	.29	.30½	.29½
September	.37	.33	.29½	.29
October	.34	.31	.33	.29½
November	.32	.29½	.35	.32
December	.32½	.32½	.36	.34
Year	.37	.27	.36	.23

Twenty-three Years' Prices

	Per pound H.	Per pound L.
1923	$0.36	$0.23
1922	.37	.27
1921	.37½	.16
1920	.50	.24
1919	.55	.19
1918	.49	.43
1917	.55	.19½
1916	.20	.16½
1915	.21	.15¼
1914	.22	.14½
1913	.21½	.15
1912	.20½	.10⅝
1911	.19	.12
1910	.15½	.10
1909	.11½	.09½
1908	.12	.10
1907	.18½	.11
1906	.15	.13
1905	.14½	.08½
1904	.19	.13
1903	.10½	.07½
1902	.09	.08
1901	.09½	.07⅛

Nutmeg, 110s

On January 12, 1881, the price of prime to ordinary was 27½c. to 30c.; October 18, 1881, 65c. to 84c.; 1891, 105s to 110s, 60c. to 61c.; 1901, 22½c. to 23c.; 1911, 14¾c. to 15c.; 1913, 14c. to 14¼c.; 1918, August, 39c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.18	$0.17½	$0.23	$0.22½
February	.19½	.18	.23	.22½
March	.21	.20	.24	.24
April	.21	.21	.24	.24
May	.21	.20	.24	.24
June	.20¾	.20	.24	.22½
July	.20½	.20	.22½	.22½
August	.20½	.20	.22	.22
September	.20½	.20	.24	.21
October	.21	.20½	.24	.24
November	.22	.22	.27	.24½
December	.22½	.22½	.27	.27
Year	.22½	.17½	.27	.21

Pepper, Singapore, Black

On April 28, 1875, the price of ground was 18c. to 25c.; October 18, 1881, whole, 16½c. to 17c.; 1891, 8½c. to 8¾c.; 1901, 12¾c. to 12¾c.; 1911, 11¾c. to 11½c.; 1913, 11¾c. to 12c.; 1918, May, 28½c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.10	$0.09½	$0.10¼	$0.10
February	.10	.10	.10⅜	.10¼
March	.10½	.10	.11	.11
April	.10½	.10½	.11	.10¼
May	.10½	.09⅝	.10⅝	.10½
June	.09⅝	.09⅝	.10½	.10½
July	.10	.09⅝	.10½	.10½
August	.09⅝	.09¼	.10½	.10⅜
September	.09⅝	.09½	.10⅜	.10⅜
October	.09⅝	.09⅝	.11½	.10⅜
November	.09⅝	.09⅝	No stocks.	
December	.10	.09⅝	No stocks.	
Year	.10½	.09¼	.11½	.10

Pepper, Lampong

On April 28, 1875, the price on ground was 18c. to 25c.; October 18, 1881, whole, 16½c. to 17c.; 1891, 8½c. to 8¾c.; 1901, 12¾c. to 12¾c.; 1911, 11c. to 11¼c.; 1913, 10¾c. to 11c.; 1918, May, 28½c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.07½	$0.07½	$0.09¾	$0.09¼
February	.08	.07½	.10⅜	.09⅞
March	.08⅝	.08¼	.11	.10⅜
April	.08½	.08¼	.10⅜	.09⅝
May	.08⅝	.08⅝	.09½	.09¼
June	.08⅝	.08	.09¼	.09
July	.07⅞	.07½	.09⅝	.09¼
August	.07⅝	.07½	.09	.08¼
September	.07⅞	.07½	.09⅝	.08¼
October	.08¼	.07⅞	.09¼	.09⅝
November	.08¼	.08¼	.09½	.09¼
December	.09¼	.08⅝	.10½	.09⅞
Year	.09¼	.07½	.10¾	.08¼

Pepper, Singapore, White

On April 28, 1975, the price on powder was 30c. to 36c.; October 18, 1881, whole, 22½c. to 23¾c.; 1891, 14¾c. to 15c.; 1901, 19½c. to 19⅝c.; 1911, 16¾c. to 17c.; 1913, 20c. to 20½c.; 1919, August, 34¾c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14	$0.13½	$0.14	$0.13½
February	.14½	.13½	.14¼	.14
March	.14½	.13¾	.14¾	.14¾
April	.13¾	.13½	.14¾	.13¾
May	.13¾	.13¾	.13¾	.13½
June	.13½	.13½	.13½	.13
July	.13½	.13	.14	.13¾
August	.13	.13	.13¾	.13
September	.13	.12⅞	.15	.13¼
October	.13	.13¾	.14½	.14¼
November	.12¾	.12¾	.14½	.14⅞
December	.13¼	.12¾	.14¾	.14½
Year	.14½	.12¾	.15	.13

Pepper, Chillies, Japan, No. 1

On April 28, 1875, the price of ground African was 30c. to 32c.; October 18, 1881, whole, Bombay, 13c. to 14c.; 1891, Bombay, 8½c. to 9c.; 1901, Japan, 10¾c. to 11c.; 1911, 12c. to 12¼c.; 1913, 8¼c. to 8⅝c.; 1921, October, 42c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.42	$0.42	$0.32	$0.29
February	.42	.42	.29	.29
March	.42	.42	.29	.28
April	.42	.37	.29	.29
May	.37	.37	.29	.25
June	.40	.37	.29	.27
July	.40	.40	.27	.27
August	.42	.40	.29	.28½
September	.42	.42	.29	.28½
October	.39	.39	.29	.28
November	.37	.37	.27	.27
December	.37	.32	.27	.24½
Year	.42	.32	.32	.24½

Dye Imports at New York in February

Imports for consumption through the port of New York in February of dyes, synthetic aromatic chemicals, medicinals, pharmaceuticals and other coal-tar products follow in detail.

This table includes imports through the port of New York to the amount of 158,874 pounds, and also 2,444 pounds from Boston, 441 pounds from Chicago, and 110 pounds from Philadelphia.

Schultz No.	Name of dye.	Maker.	Pounds.	Invoice value.	Origin.	Per-cent.
19	Fast light yellow		500		Germany	100
	Fast light yellow 3G	By				
28	Hansa yellow G		360		Germany	100
nc	Hansa yellow G powder	M				
74	Tannin orange R		30		Germany	100
	Tannin orange R powder	C				
88	Acid anthracene brown		441		Germany	100
nc	Acid anthracene brown PG	By				
118	Geranine		248		Germany	100
	Brilliant geranine B	By				
120	Salmon red		10		Germany	100
	Salmon red	A				
158	Chrome brown		551		Switzerland	100
nc	Chrome brown RVV	G				
274	Diaminogene B		499		Germany	100
nc	Diazo indigo blue 2RL	By				
319	Diamine scarlet		500		Germany	100
	Diamine scarlet 3B	C				
449	Trisulphon brown		3,307		Switzerland	100
nc	Trisulphon brown B conc	S				
456	Benzo fast blue		220		Italy	100
nc	Benzo light blue 4GL	By				
457	Trisulphon brown GG		5,236		Switzerland	100
nc	Trisulphon brown GG conc	S				
506	Erioglaucine		12,213		Switzerland	100
nc	Erioglaucine AP	G				
	Erioglaucine EP	G				
507	Xylene blue VS		2,094		Switzerland	100
c	Xylene blue VS conc	S				
508	Xylene blue AS		500		Switzerland	100
nc	Xylene blue AE conc	S				
523	Fast green		5,069		Germany	87
nc	Fast green extra bluish	By			Italy	13
545	Patent blue A		110		Germany	100
nc	Brilliant acid blue FF	By				
546	Cyanol		220		Italy	100
	Cyanol FF	C				
554	Chrome azurol		551		Switzerland	100
nc	Chrome azurol S conc	G				
562	Fast acid blue		1		Germany	100
	Brilliant wool blue B extra	By				
565	Acid blue B		200		Germany	100
	Wool blue 5B	A				
571	Rhodamine 6G		224		Italy	51
nc	Rhodamine 6G extra	B			Holland	49
572	Rhodamine G		25		Germany	100
	Rosazeine G extra	M				
597	Rose bengal		10		Germany	100
	Rose bengal B	M				
606	Phosphine		6,522		Switzerland	86
c	Patent phosphine G	I			Holland	14
	Patent phosphine M	I				
c	Patent phosphine R	I				
	Phosphine O	Q				
609	Homophosphine		2,240		Germany	100
nc	Corioflavine RROOOO powder					
613	Quinoline yellow		55		Switzerland	100
c	Quinoline yellow conc	G				
627	Anthracyanine		661		Switzerland	100
nc	Chromacetine blue S	DH				
663	New methylene blue		200		Switzerland	100
	New methylene blue NS conc	S				
673	Azo carmine B		500		Germany	100
	Rose induline 2B	K				
681	New fast gray		1,102		France	100
nc	Malta gray J	P				
687	Rosolane OTR		625		Germany	100
	Methylene heliotrope extra	M				
705	Indamine 6R		200		Germany	100
	Indocyanine B	A				
720	Sulphur black		10		Germany	100
	Sulphur black AWL extra	A				
746	Katgene green		2,205		Switzerland	100
nc	Pyrogene green GK	I				
759	Anthraflavone G (single strength)		1,759		Germany	79
nc	Anthra yellow GC paste	R			Italy	21
	Anthra yellow GC powder	B				
nc	Anthraflavone GC paste	B				

Schultz No.		Name of dye.	Maker.	Pounds.	Invoice value.	Origin.	Per-cent.
760		Indanthrene golden orange G (single strength)		1,793		Italy	78
	nc	Indanthrene golden orange G double paste				Belgium	12
		Helindone golden orange IG paste...	M			Holland	10
		Helindone golden orange IG double paste	M				
		Helindone golden orange IG powder.	M				
761		Indanthrene golden orange R (single strength)		6,960	$8,992	Germany	97
						Italy	3
	nc	Indanthrene golden orange RRT paste	B				
		Helindone golden orange IRRT paste.	M				
	nc	Vat orange RRT paste	B				
765		Indanthrene green B (single strength).		794		France	100
	c	Indanthrene black BB double paste.	B				
778		Alizarin synthetic		3,800		Germany	100
		Alizarin red DIB new paste	M				
780	nc	Alizarin red S		1,014		Belgium	100
		Alizarin red S powder	B				
810		Helindone yellow 3GN (single strength)		220		Italy	100
		Helindone yellow 3GN paste	M				
819		Algol red FF, R (single strength)		2,176		Germany	100
	nc	Vat red FF extra paste	By				
	nc	Vat red FF extra powder	By				
820		Algol brilliant violet R (single strength)		3,732		Germany	91
		Algol brilliant violet R powder	By			Italy	9
		Vat brilliant violet RK paste	By				
		Vat brilliant violet RK powder	By				
821		Algol brilliant violet BB (single strength)		1,001		Germany	100
		Vat brilliant violet BBK paste	By				
822		Algol brilliant orange FR (single strength)		660		Italy	67
	nc	Algol brilliant orange FR powder	By			Holland	33
		Vat brilliant orange FR paste	By				
829		Indanthrene bordeaux B (single strength)		1,320		Italy	100
	nc	Indanthrene bordeaux B powder	B				
831		Indanthrene red BN (single strength)		3,024	4,742	England	37
		Indanthrene red BN extra paste	B			Scotland	37
		Helindone red IBN extra paste	M			Germany	17
		Helindone red DIBN extra paste	M			Italy	6
		Vat red BN extra powder	B			Canada	3
832		Indanthrene violet RN (single strength)		419		Germany	100
	nc	Vat violet RN paste	B				
833		Algol olive R (single strength)		5,613	3,125	Germany	36
	nc	Algol olive R paste	By			Italy	33
		Vat olive R paste	By			Canada	31
		Vat olive R powder	B				
		Vat olive R powder	By				
834		Algol gray (single strength)		88		Germany	100
		Vat gray GK powder	By				
847		Algol green B (single strength)		701		Germany	100
		Vat green BB paste	By				
849		Indanthrene yellow (single strength)		110		Holland	100
		Indanthrene yellow G double paste	B				
852		Alizarin irisol D, R		110		Germany	100
		Alizarin blue JR	By				
853		Anthraquinone violet		448		Germany	100
	nc	Anthraquinone violet powder	B				
855		Alizarin pure blue B		760		Germany	87
	nc	Alizarin sky blue B powder	By			Belgium	7
						Italy	6
856		Alizarin astrol		1,001		Germany	100
		Alizarin blue AS powder	By				
858		Alizarin saphirol B		2,205		Switzerland	100
	c	Alizarin light blue B conc	S				
864		Anthraquinone green		44		Italy	100
	nc	Anthraquinone green GXNO	B				
865		Alizarin direct green G		165		Italy	100
	c	Alizarin cyanine green G ex	By				
869		Algol brown B (single strength)		20,497		Germany	88
		Algol brown R paste	By			Belgium	12
		Vat brown R paste	By				
	nc	Vat brown R powder	By				
870		Algol corinth R (single strength)		1,401		Germany	100
		Helindone corinth IRK powder	M				
	nc	Vat corinth RK paste	By				
893		Alizarin indigo G		1		Germany	100
		Alizarin indigo G paste	By				
894		Alizarin indigo B		2		Germany	100
		Alizarin indigo green B paste	By				
		Alizarin indigo violet B paste	By				
895		Alizarin indigo 3R		501		Germany	100
	nc	Alizarin indigo 3R paste	By				
896		Helindone blue 3GN		175		Germany	100
		Helindone blue 3R paste	M				
904		Helindone brown G (single strength)		275		Italy	100
		Thioindigo brown G powder	K				
907		Ciba scarlet (single strength)		3,968		Switzerland	91
	nc	Ciba scarlet G extra paste	I			Italy	9
		Thioindigo scarlet 2G paste	K				
908		Ciba red R		2,645		Switzerland	100
	nc	Ciba red R paste	I				
910		Helindone pink		1,521		Italy	100
		Helindone pink AN paste	M				
912		Thioindigo red B (single strength)		1,299		Switzerland	100
	nc	Ciba pink BG paste	I				
	nc	Ciba pink BG powder	I				
917		Helindone red B (single strength)		148		Italy	100
		Helindone red B paste	M				
918		Helindone red 3B		4,023		Germany	75
		Helindone red 3B paste	M			Holland	25
	nc	Thioindigo red 3B paste	K				
919		Ciba bordeaux B (single strength)		3,310		Switzerland	100
	nc	Ciba bordeaux B powder	I				
920		Helindone violet		500		Germany	100
		Helindone violet R paste	M				
923		Ursol		1,525		Germany	100
		Fur blue black SB	A				
		Fur brown, NZ, P, 2R, 4R	A				
		Fur yellow 2G	A				
		Nako DR	M				

Unidentified Acid Dyes

		Alizarin rubinol		786	1,689	Germany	71
						Belgium	19
						Italy	10
	nc	Alizarin rubinol 3 G	By				
	nc	Fast light red BL	By	220		Germany	100
	nc	Guinea fast red BL	A	1,500		Germany	100
	nc	Polar red 3B conc	G	551		Switzerland	100

Vat Dyes

		Algol brilliant pink (single strength)		591		Germany	100
	nc	Algol brilliant pink FB powder	By				
		Algol brilliant pink FF paste	By				
		Algol brown G		6,679		Germany	64
		Vat brown G paste	By			Belgium	35
						Italy	1
		Alizarin indigo, 7G, 5R, 7R paste	By	3		Germany	100
		Alizarin indigo brown R paste	By	1		Germany	100
		Alizarin indigo green G paste	By	1		Germany	100
		Alizarin indigo grey B paste	By	1		Germany	100
		Alizarin indigo red B paste	By	1		Germany	100
		Alizarin indigo pink B paste	By	1		Germany	100
	nc	Ciba printing black G paste	I	881		Switzerland	100
		Hydron orange RF paste	C	331		Italy	100
		Hydron scarlet 2B (single strength)	C	330		Italy	100
		Indanthrene pink B (single strength)	B	2,018		France	51
						Belgium	49
		Indanthrene red violet RRN, RRK, paste	B	401		Italy	100

Mordant and Chrome Dyes

nc	Alliance fast brown 5G paste	BD	50	England	100
nc	Brilliant chrome blue R powder	By	331	Germany	100
nc	Chromal blue GC for printing	G	1,103	Switzerland	100
	Chrome yellow CR	G	551	Switzerland	100
c	Eriochrome flavine A conc	G	2,205	Switzerland	100
	Metachrome blue black 2BX	A	500	Germany	100
	Metachrome olive brown G	Bro.	1,000	England	100
nc	Ultra corinth B	S	100	Switzerland	100

Direct Dyes

	Name of dye.	Maker.	Pounds.	Invoice value.	Origin.	Per-cent.
	Benzo light brown 3GL	By	55		Holland	100
nc	Brilliant benzo violet B, 2R	By	963		Germany	100
nc	Chloramine light violet R conc	S	330		Switzerland	100
nc	Chlorantine fast brown RL	I	2,535		Switzerland	100
nc	Chlorazol fast orange 9188 K	BD	50		England	100
	Diamine fast bordeaux 6 BS	C	55		Italy	100
	Diamine fast brown GB	C	110		Italy	100
	Diamine fast Orange ER	C	524		Italy	100
	Diazo brilliant orange 5G ex	By	10		Germany	100
	Diazo light violet BL	By	95		Italy	100
nc	Diazo indigo blue 4 GL extra	By	366		Italy	100
	Direct brown	P.P	22		France	100
	Fast cotton yellow RL, 4GL	A	10		Germany	100
nc	Parasulfon brown V	S	500		Switzerland	100
nc	Rosanthrene orange R	I	441		Switzerland	100
	Zambesi black D	A	500		Germany	100

Sulphur Dyes

c	Cross dye green 2 G conc	BD	2,344		England	100
c	Cutch brown 2 R conc	S	500		Switzerland	100
nc	Pyrogene violet brown X	I	661		Switzerland	100
	Sulphur brilliant blue CLB	A	500		Germany	100

Basic Dyes

nc	Indoine A extra pure	G	110		Switzerland	100
nc	Rhodamine sky blue 3G	By	110		Germany	100

Spirit Soluble and Color Lake Dyes

	Helio bordeaux BL paste	By	500		Germany	100
nc	Helio bordeaux BL powder	By	992		Germany	100
nc	Paper fast bordeaux B	By	11		Germany	100
	Permanent red F6R extra	A	5		Germany	100
nc	Typophor yellow FR	B	100		Germany	100

Unclassified Dyes

Blue I	B.C.	13		England	100
Blue II	B.C.	13		England	100
Blue III	B.C.	3		England	100
Blue V	B.C.	3		England	100
Diazo solamine I	B.C.	13		England	100
Diazo solamine II	B.C.	13		England	100
Diazo solamine III	B.C.	13		England	100
Golden orange I	B.C.	13		England	100
Golden yellow VIII	B.C.	13		England	100
Orange I	B.C.	13		England	100
Orseille red	P.P.	7		France	100
Pure yellow I	B.C.	13		England	100
Red I	B.C.	13		England	100
Red III	B.C.	13		England	100
Red V	B.C.	13		England	100
Royal blue	P.P.	7		France	100
Taupe gray (mole)	P.P.	4		France	100
Turquoise blue	P.P.	7		France	100

Color Lakes of Coal-Tar Origin

nc	Azure blue	2,500	Germany	100
	Brown madder lake D	20	France	100
	Madder lake VN	1,235	Germany	100
	Peacock blue	220	Germany	100
	Viridine lake	206	Germany	100

Synthetic Aromatic Chemicals of Coal-Tar Origin

	Name of chemical.	Pounds.	Ounces.	Invoice value.	Origin.	Per-cent.
c	Anisic aldehyde	76	..		France	99
					Switzerland	1
c	Benzylidine acetone	..	13		Switzerland	100
c	Benzyl acetate	114	..		France	100
	Butyl phenylacetate	1	..		France	100
c	Cinnamic acid	..	11		Switzerland	100
c	Coumarin	..	9		Switzerland	100
c	Diethyl phthalate	1,653	..		Switzerland	100
nc	Dimethylhydroquinol	1	10		Switzerland	100
c	Ethyl cinnamate	1	..		Holland	100
	Isobutyl phenylacetate	1	..		France	100
c	Jacinthe absolute	..	11		Switzerland	100
c	Methyl acetophenone	17	..		Holland	59
					France	41
c	Methyl anthranilate	70	..		France	94
					Germany	6
nc	Dimethyl anthranilate	..	7		Switzerland	100
nc	Methyl coumarin	2	..		Switzerland	100
nc	Methylnonylacetaldehyde	..	8		Holland	100
nc	Musk	2	..		Switzerland	100
nc	Musk ambrette	75	7		Holland	100
nc	Musk ketone	239	..		Switzerland	95
					France	5
nc	Musk P C	1	12		Switzerland	100
c	Neroline (b-naphthol ethyl ether)	500	..		Germany	100
	Paracresol phenylacetate	2	3		France	100
	Paramethylquinoline	..	9		France	100
c	Phenyl acetic aldehyde	213	..	$850	Germany	35
					Holland	26
					Switzerland	23
					France	16
c	Phenylethyl alcohol	288	..	675	France	53
					Holland	47
	Phenylethyl benzoate	..	9		France	100
	Phenylethyl cinnamate	..	9		France	100
c	Phenylpropyl alcohol	..	7		Switzerland	100
nc	Phenylpropyl aldehyde	6	6		Switzerland	100
nc	Skatol (betamethylindol)	4	8		Switzerland	100
c	Vanillin	4	5		France	81
					Switzerland	19
c	Yara yara (b-naphthol methyl ether)	20	..		France	100

Medicinals, Photographic Developers, Intermediates and Other Coal-Tar Chemicals

nc	Allyl phenylcinchonin	148	..	Switzerland	100
	Amido pyrazoline	198	..	France	100
	Amidopyrine	1,102	..	Switzerland	100
nc	Benzamine hydrochloride	..	1.5	England	100
nc	Beta naphthol	9	..	England	100
c	Caffeine sodium benzoate	1	2	England	100
c	Developer Z (phenyl methyl pyrazolone)	100	..	Germany	100
c	Epinine	(141 c.c.)		England	100
	Guaiacol carbonate	1,120	..	Switzerland	100
nc	Homatropine hydrobromide	..	12	England	100
c	Naphthol monosulphonic acid F (2-naphthol-7-sulphonic)	2,000	..	Germany	100
nc	Novadelox (flour bleaching comp).*	38,589	..	Holland	100
c	Phenol U.S.P.	11,370	..	England	100
	Salicylic acid	..	7	England	100
nc	Sodium salicylate	258	..	France	86
				England	14
	Pyrazolone	198	..	France	100

* Port of Buffalo.

Essential Oils: Market Review

In the essential oil market for 1923 there were several price surges, up and down, according to the trend of events, which made the market one of considerable interest for the greater part of the period. In the main, values showed strength with just enough changes in undertones and undercurrent to provide that variation of conditions which makes for a lively market.

Business for the greater part of the year was quite satisfactory to the trade. Of course, the summer months found demand limited to its usual jobbing proportions and from time to time at other seasons it was not all that might be desired. In contrast to and offsetting this was the excellent quality and quantity of buying when the consuming trade felt the need for larger supplies. Further, the shifting of exchange values and the rise and fall of foreign prices was rather closely coordinated with price changes on spot.

At certain times marked scarcity of individual items occurred and such shortages were usually the signal for a liberal advancement of spot prices. However, it was a rare material that held its gains over a long stretch of time. Reaction came as certainly as did the advances—a condition which kept the market fairly well balanced for the consuming trade.

Index Numbers

A broad understanding of the general drift, trend and shift of market conditions may be gained from the Reporter's Index Number which is compiled weekly. In the interest of such comprehension a tabulation of Reporter Index numbers based on 20 important oils and prevailing on the first of each month follows:

(Normal 190)

	Index Number.
January	236.1
February	235.3
March	239.2
April	247.5
May	256.1
June	264.1
July	266.5
August	263
September	254.5
October	251.6
November	257.7
December 1	270
December 31	271.7

The rise of the index during the first seven months of the year is clear evidence of the strong currents that were at work. At no time during this period was the index below 235.3 and the peak of the rise came in the third week in July when 270.2 was reached. August and September are revealed as months of easier tendencies and during this time the index declined from week to week. The low for the movement came in the third week in September at which time 251.2 was reached. The second week of October found the market awakening from its summer depression and beginning then at 255.8, the number rose steadily with hardly a set back until the peak for the last advancing movement was reached in the second week in December: the index touched 279.7 at that time. Between December 10 and 24 the index dropped to 271.5, ending the year at 271.7.

Lemon Oil Cheap

In considering the developments in individual articles, the market will be divided somewhat into groups, starting with the citrus oils. This group comprises lemon, bergamot and orange oils as its principal members. The outstanding attribute of lemon oil throughout the year was the fact that at no time was it dear. It failed utterly to reach the high of 1922 and it dropped within 2c. of the low for that year also.

The low for 1922 was 63c.; for 1923, 65c. per pound, and excepting for 1922, lemon oil at no time since 1906 has sold so cheaply; in 1906, the market touched a low of 57c. The lowest price during the past twenty-three years was 50c. per pound reached in 1904. It is a fact that the years 1921, 1922 and 1923 were years of exceptionally low lemon prices, even reckoning this opinion from the top prices achieved. Prior to 1923, the only time lemon in the last 14 years failed to go above 85c. per pound was in 1910, when the top price was 82½c. per pound.

The above facts show clearly that lemon oil was a cheap article for the greater part of the year. Also it demonstrates that the higher duty imposed on lemon oil in 1922 has not affected the consuming trades in this country in adverse manner.

There was but one time during the past year when prices seemed to be stabilized. That was in the period September-December, inclusive, when the price remained without change at 70c. per pound inside. Most of the price action came in the first eight months of the year.

Prices in January were noted at 65c. per pound—the low for the year, incidently. The February fluctuations were between 65c. and 70c. per pound, while during March the lowest quotation was 70c. per pound and as high as 73c. per pound ruled at one time. In April a new high for the generally advancing movement was reached at 75c. and at no time during that month was lower than 70c. per pound named. The high for the year came at 80c. per pound in May, during which time the lowest quotation was 75c. per pound. The June price was still high at 80c., but the low was 2½c. above that of May, being 77½c. per pound. In July the decline set in and from 77½c. per pound as high, goods sold in that month down to 72c. per pound. In August the movement was extended from 75c. down to 72c. per pound. In September 70c. per pound was done, but the decline was checked there for the balance of the year.

Orange oil showed a trend similar to that in lemon. Messina oil opened the year at $2.40 per pound, but by the end of February stood at $2.65 per pound. Each succeeding month end found the price higher. In March the market was up to $2.75; in April, to $2.90; May, $3.10; June, $3.65; and in July the high for the year was struck at $3.95 per pound. From July on the drop was progressive until December, when $2.90 per pound was struck. This was not the low for the year; that had been $2.40 per pound, ruling during January. December also saw the first reaction and prices recovered to $3.10 per pound.

Bergamot Controlled

Contrary to the strong market and rising prices of the early year in lemon and Italian orange, bergamot staged an act all its own, being closely controlled. Prices proved to be irregular. The high for the year ruled in January—$3 per pound. The low came in February at $2.40 per pound. The general trend of values during the first six months was downward. The market dropped steadily from $3 per pound in January to $2.50 per pound in May, although fluctuations during the first four months at times placed the market around $2.70 per pound. For example, in March prices fluctuated between $2.50 and $2.70 per pound; in April, the fluctuation was between $2.50 and $2.60 per pound. During June and July the market varied from $2.55 to $2.60 per pound, but from August on things began to look up. From a price movement varying between $2.60 and $2.65 per pound in August and September, the market rose to as high as $2.75 per pound during October and November and during these two months no lower than $2.65 was accepted. The market in December closed at $2.70 per pound and this price ruled for the entire month.

The factors governing the strong market for lemon and orange early in the year were excellent and continued strong demand in this country and a rising replacement market in Italy. Something like a shortage of oil occurred during the month of price advance and it was this, plus the similar condition in Italy, that forced the prices upward.

Domestic Orange Oil

An item of interest during the year was the expansion in production and sales of domestic orange and lemon oils. The infant industry of California had been assisted in the tariff of 1922 to the extent of a rather sharp advance in duty. It was a significant fact that sales of domestic oil increased about as much as production would permit. It was also demonstrated that the imposed duty had not only made it possible for the domestic oil to offer a mild competition to the Messina product but to do so not at the expense of the consuming industry of this country. The prices at which the domestic oil was sold was usually even with the quotations on Messina oil; on a few occasions the price was under the latter quotations.

Importations of lemon oil for the entire year of 1923 totaled 416,232 pounds; for 1922 they were 689,520 pounds. The import totals on orange oil, all kinds included, were 221,702 pounds for 1923; for bergamot, 108,704 pounds.

Bandits Boosted Cassia

Cassia was an active oil throughout the year. There was a good demand for the article. Failure of oil to arrive at Chinese shipment ports—due to bandits being in control of the transportation arteries—resulted in a bull market from March to September. The last quarter of the year developed an easier trend and lower prices, due directly to the success of shippers in China in getting oil out of the interior. In January redistilled U.S.P. oil was priced between $2 and $2.15 per pound, with the end of the month noting the market under pressure. In February $2 per pound was held unchanged. The rise began at $2.10 per pound in March and continued to $2.25 per pound. Early in April $2.50 per pound was reached, and the rise eventually brought a high of $2.60 for that month. The May advance was even greater, the month starting at $2.50 per pound and ending at $2.85 per pound. In June the high for the year was reached at $3 15 per pound, the rise in that month starting from $2.90 per pound. July saw the market slightly reactionary at from $3 to $3.10 per pound, but in August and September $3.15 per pound was again reached; at times during these months $3.10 per pound was done. In October the decline began at $3 per pound, and the movement extended, until in December as low as $2.60 per pound was accepted on spot.

Clove Spice Strengthened Oil

Clove was an irregular article until the latter portion of the year. A rising market obtained from September to the end of December, and was caused by the report of the smallest spice crop on record. The January position was noted between $1.90 per pound and $2.25 per pound, this being a declining period. In February the prices ranged from $1.80 per pound to $1.90 per pound, and in March the range was extended to as high as $2 per pound. The lowest price of the year came in April, when $1.75 per pound ruled throughout the month. This price carried over into May, but did not last long, as values advanced to $1.95 per pound during the month. In June, July and August buyers paid between $2.10 and 2.20 per pound. In September the market eased off to the price range of $2.05 to $2.10 per pound. The lower figure carried into October, when values were abruptly shot to $2.25 per pound. November opened at $2.25 per pound, but the prices were soon up to the high for the year—$2.40 per pound—which figure prevailed to the end of January.

Floral Oils Strong

The group of floral oils displayed a considerable strength toward the close of the year. This was due principally to the conservative production of lavender and geranium oils abroad, with the natural consequence of an advance in shipment prices. During the last quarter prices showed a marked upward movement, especially in lavender, which article went from the low of $2.50 per pound, reached in June and prevailing during July and August, to $2.75 per pound in September; to $3 lowest and $4.25 per pound highest for October; to $4.50 per pound in November. This was the high for the movement, and was maintained throughout the balance of the year. In Bourbon geranium the advance began in October at $6.25 per pound, and reached $7 during the month. November found the price moved up from $7.25 to $7.50 per pound, but toward the end of the month the price eased off to $7.25 per pound again. In December it opened at $7.25 per pound and ended at $6.75 per pound. The decline was due to an increase of stocks.

Peppermint Active

Peppermint oil was active both as to prices and demand. The early part of the year found the market subject to some depression. Opening at $3 per pound, prices were shortly down to $2.85 per pound in January. February was even at $2.85. In March as low as $2.65 per pound was done although other sales were made as high as $2.85 per pound early in the month. April noted a decline from $2.80 to $2.70 per pound. May, June and July were the dullest months of the year and during that period the spot market remained unchanged at $2.65 per pound. The price hung over into August but shortly after the first of the month the market in the west firmed up and local prices were braced up to $2.70 per pound. September witnessed the rise from $2.90 to $3.10 per pound and in October the fluctuation was between $3 per pound and $3.10. In November the spot market went forward to $3.15 per pound and in December, the high for the year was reached at $3.25 per pound.

The midsummer period was one of much contemplation as to the probable trend of the fall market. Many factors on spot felt that prices would decline and remained consistently out of the market in the west least any buying of forwards might lend support to primary market intentions. Subsequent events proved that those of bearish price views had the market figured wrong. As the season for production drew to a close it was found that primary market factors held strong views and were able to await their market. It was not long in developing and their sales direct to manufacturing consumers as well as to spot dealers made heavy inroads on the available supply. At the end of the year it seemed clear that consumers of peppermint oil were in for a period of high and advancing prices for the period prior to new crop in 1924.

Cloudburst Hurt Wormseed Crop

Wormseed oil was an active and fluctuating market throughout the year. Consumption of this article has shown a marked increase each year and demands that constantly expanded in 1923 could hardly be taken care of out of the moderate production held over from the 1922 crop and the small production in hand at the end of the distillation season of 1923. The high for the year was $7.20 per pound, reached in July. This was an advance from $3.85 per pound, which price prevailed in January. The sharpest advance came in April, when local quotations rose from $4.25 per pound to $6.50 per pound. From July to October prices eased off steadily but by moderate degrees until in October $3.90 per pound was accepted on spot and this was the lowest spot prices reached on the basis of new crop production.

The new crop proved to be far smaller than the original acreage planted suggested. At a critical time in the development of the plants, the Baltimore district was victim of a cloudburst. This downpour of water uprooted the growing plants and made replanting necessary. The result was a delayed crop and one showing a low oil yield per acre.

The recovery from $3.90 per pound was almost instantaneous. No sooner had the figure been reached when a buying wave swept into the primary market and local quotations rose sharply from $3.90 per pound in October, to a low of $4.25 per pound in November. During November, prices advanced to $5.50 per pound, while December witnessed a swing from $6 per pound to $6.75 per pound, at which figure the market ended the year firm.

Citronella Adulteration

No review of the essential market would be complete without a chapter on citronella. For many years, adulteration of Ceylon oil has been practiced in the primary market. Various oils have been used, but coconut and mineral oils have been favored.

In the latter part of August several large shipments of oil arrived here and were found to be so highly adulterated with alcohol—methylated spirits, according to one primary market cable—that most of it was rejected and reexported. The alcohol was used as a vehicle to carry a larger quantity of kerosene or other oils. Chemical analysis here proved that the adulteration averaged from 8 to 28 percent, and on occasions as high as 35 to 40 percent was alleged by importers.

This situation naturally placed a premium price on good average quality oil, with the usual amount of adulterant to which the trade had been forced to accept for years. Early in the first week in October 69c. per pound was the price in drums, and before the end of that month 82½c. per pound had been reached. November opened at 82½c. per pound, but the price failed to last more than a week. It was followed by 85c. per pound, and then the market went to 90c. per pound during the last week in the month. December opened at 90c. per pound and held thereat for two weeks. The last two weeks of the year found the market strong at 95c. per pound.

The same condition of adulteration was experienced in London. The British authorities classified the citronella adulterated with large quantities of alcohol under a tariff provision that made import cost of such material prohibitive. A similar action might have been taken under the U. S. tariff of 1922, but custom officials abstained. Importers took strong measures to eliminate the practice of adulteration, and evidence in hand at the end of the year pointed to probable success.

Schimmel Test Questioned

The fact that all citronella contracts are written on the so-called Schimmel test was considered to be in part responsible for the success of Ceylon shippers in foisting the adulterated products on importers. High adulteration is possible and still have the oil conform with the Schimmel test; in fact, it was alleged that large quantities of alcohol would facilitate the test. Late in the year there was a movement afoot looking to the adoption of a more exhaustive test—one which would show the actual extent of adulteration—and also to insist on a "pure oil" clause in all contracts. How successful both these attempts to remedy a bad situation will be remained to be demonstrated.

Market Ended Year Firm

The entire essential market seemed to be in very firm position at the end of the year. The trend of prices was strongly upward, both because of good demand and also for the reason that local supplies throughout the entire list were conservative and could not stand a heavy drain. Transactions between dealers showed a pronounced tendency to increase, owing to the absence of adequate stocks in the general line. The outlook for 1924 was excellent.

Essential Oils: Record of Prices

Almond, Bitter

On May 29, 1872, the price was $14; October 18, 1881, $4.50 to $7.50; 1891, $4.50 to $7.25; 1901, $3.50 to $4.25; 1911, $3.50 to $5; 1913, $3.50 to $6.50; 1917, November, $13.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$5.75	$5.75	$3.75	$3.75
February	4.75	4.75	3.75	3.75
March	4.75	4.75	3.75	3.75
April	4.75	4.75	3.75	3.75
May	4.75	4.75	3.75	3.75
June	4.75	4.75	3.75	3.75
July	4.75	4.75	3.50	3.50
August	4.75	4.75	3.50	3.50
September	4.75	4.75	3.50	3.25
October	4.75	4.25	3.25	3.25
November	3.75	3.50	3.25	3.25
December	3.75	3.75	3.25	3.25
Year	5.75	3.50	3.75	3.25

Almond, Artificial, U. S. P.

On January 20, 1902, the price was 75c. to $1; October 18, 1911, 48c. to 85c.; 1913, 40c. to 45c.; 1917, January, $5.

(For comparative prices, 1922 and 1923, see Benzaldehyde, Coal Tar Products, page 58.)

Bergamot

On October 18, 1871, the price was $4.50 to $4.75; 1881, $2.45 to $2.50; 1891, $2.90 to $3.70; 1901, $2.50 to $2.75; 1911, $3; 1913, $6 to $6.50; 1918, September, $7.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$5.00	$4.85	$3.00	$2.75
February	5.00	5.00	2.70	2.40
March	5.00	4.90	2.70	2.50
April	4.75	4.50	2.60	2.50
May	4.50	4.40	2.50	2.50
June	4.35	4.25	2.60	2.55
July	4.15	3.60	2.60	2.55
August	3.60	3.60	2.65	2.60
September	3.60	3.10	2.65	2.60
October	3.10	3.00	2.75	2.65
November	3.10	3.10	2.75	2.70
December	3.10	3.00	2.70	2.70
Year	5.00	3.00	3.00	2.40

Cassia, Redistilled

On February 8, 1909, the price was $1.75 to $1.85; October 18, 1911, $1.25 to $1.40; 1913, $1.30 to $1.40; 1918, November, $3.75.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$1.65	$1.65	$2.15	$2.00
February	1.70	1.65	2.00	2.00
March	1.65	1.60	2.25	2.10
April	1.60	1.60	2.60	2.50
May	1.75	1.60	2.85	2.50
June	1.80	1.80	3.15	2.90
July	1.80	1.80	3.10	3.09
August	1.90	1.85	3.15	3.10
September	1.75	1.65	3.15	3.10
October	1.65	1.65	3.00	2.90
November	1.85	1.65	2.85	2.80
December	2.15	2.00	2.70	2.60
Year	2.15	1.60	3.15	2.00

Clove

On November 22, 1871, the price was $1.40 to $1.50; October 18, 1881, $1.90 to $2; 1891, 75c. to 77½c.; 1901, 60c. to 62½c.; 1911, 97½c. to $1; 1913, $1.15 to $1.20; 1917, November, $4.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.30	$2.20	$2.25	$1.90
February	2.20	2.15	1.90	1.80
March	2.15	2.15	2.00	1.80
April	2.10	2.05	1.75	1.75
May	2.05	1.95	1.95	1.75
June	1.95	1.90	2.20	2.10
July	1.85	1.80	2.20	2.00
August	2.00	2.00	2.20	2.10
September	2.35	2.25	2.10	2.05
October	2.15	2.00	2.25	2.05
November	2.25	2.00	2.40	2.25
December	2.25	2.00	2.40	2.40
Year	2.35	1.80	2.40	1.75

Geranium, Rose, Africa, Algeria

On November 22, 1871, the price was $8 to $10; October 18, 1881, $4.50 to $8.50; 1891, $7.50 to $8.50; 1901, $5.25 to $6.50; 1911, $4.25 to $4.50; 1913, $9.50 to $10; 1918, November, $11.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$5.00	$4.75	$7.50	$7.50
February	6.00	5.00	7.50	7.50
March	7.00	6.00	7.50	7.50
April	8.00	7.00	7.50	7.50
May	8.00	8.00	7.50	7.50
June	8.00	8.00	7.50	7.50
July	8.75	8.00	7.50	7.50
August	8.75	8.75	7.50	7.50
September	8.75	8.50	7.50	7.50
October	8.75	8.50	7.50	7.50
November	8.50	8.50	7.75	7.50
December	8.50	7.50	7.75	7.75
Year	8.75	4.75	7.75	7.50

Lemon, Messina

On October 18, 1871, the price was $3.75 to $5.12½; 1881, $3 to $3.25; 1891, $2.15 to $2.75; 1901, 85c. to 95c.; 1911, $1.60 to $1.80; 1913, $3.75 to $4; 1920, March, $2.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$0.68	$0.65	$0.65	$0.65
February	.70	.65	.70	.65
March	.87	.75	.73	.70
April	.82½	.72½	.75	.70
May	.77½	.75	.80	.75
June	.75	.75	.80	.77½
July	.65	.65	.77½	.75
August	.65	.65	.75	.72
September	.70	.65	.70	.70
Octcber	.65	.63	.70	.70
November	.67½	.65	.70	.70
December	.67½	.67½	.70	.70
Year	.87	.63	.80	.65

Twenty-three Years' Prices, Lemon

	Per pound— H.	L.
1923	$0.80	$0.65
1922	.87	.63
1921	.95	.65
1920	2.00	.95
1919	1.85	1.05
1918	1.85	.87½
1917	1.20	1.05
1916	1.05	.90
1915	1.25	.95
1914	3.75	1.05
1913	4.75	2.20
1912	2.10	1.30
1911	1.65	.80
1910	.82½	.75
1909	3.00	.72½
1908	1.50	.70
1907	2.06	1.00
1906	1.20	.57
1905	.57½	.55
1904	.55	.50
1903	.70	.55
1902	.80	.65
1901	1.15	.80

Lavender Flowers

On November 22, 1871, the price was $2.90 to $3; October 18, 1881, $2.10; 1891, $1.30 to $1.75; 1901, $1.20 to $1.30; 1911, $2.25 to $3.25; 1913, $3.75 to $4; 1919, December, $11.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$3.00	$2.75	$2.75	$2.75
February	2.75	2.75	2.75	2.75
March	2.75	2.75	2.75	2.75
April	2.75	2.75	2.75	2.60
May	2.75	2.75	2.60	2.60
June	2.75	2.75	2.60	2.50
July	2.75	2.75	2.50	2.50
August	2.75	2.75	2.50	2.50
September	2.75	2.75	2.75	2.50
October	2.75	2.75	4.25	3.00
November	2.75	2.75	4.50	4.25
December	2.75	2.75	4.50	4.50
Year	3.00	2.75	4.50	2.50

Orange, Italian

On April 2, 1873, the price was $3.75; October 18, 1881, $3 to $3.25; 1891, $2.80 to $3.12½; 1901, $1.20 to $1.55; 1911, $2.45 to $2.60; 1913, $3.75 to $4; 1920, June, $11.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$3.00	$3.00	$2.40	$2.40
February	3.00	2.90	2.65	2.40
March	2.90	2.90	2.75	2.65
April	3.10	3.00	2.90	2.70
May	3.10	3.10	3.10	2.90
June	3.10	3.00	3.65	3.25
July	3.00	2.75	3.95	3.75
August	2.75	2.75	3.75	3.50
September	2.75	2.65	3.35	3.35
October	2.65	2.50	3.25	3.00
November	2.50	2.50	3.00	3.00
December	2.50	2.40	3.10	2.90
Year	3.10	2.40	3.95	2.40

Orange, West Indian

On April 1, 1915, the price was $1.35; 1920, June, $9.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.15	$2.00	$2.20	$2.20
February	2.15	2.10	2.50	2.20
March	2.50	2.10	2.50	2.45
April	2.60	2.55	2.60	2.50
May	2.60	2.50	2.60	2.60
June	2.60	2.60	2.75	2.60
July	2.60	2.50	2.70	2.65
August	2.50	2.45	2.60	2.55
September	2.45	2.45	2.50	2.50
October	2.50	2.40	2.40	2.20
November	2.40	2.40	2.20	2.15
December	2.40	2.25	2.25	2.20
Year	2.60	2.00	2.75	2.15

Peppermint

On October 18, 1871, the price was $3.35 to $3.50; 1881, $2.70 to $2.80; 1891, $2.50 to $2.80; 1901, $1.65 to $1.75; 1911, $2.87½ to $2.95; 1913, $3.70 to $3.80; 1919, March, $9.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$1.70	$1.70	$3.00	$2.85
February	1.70	1.70	2.85	2.85
March	1.70	1.70	2.85	2.65
April	1.75	1.75	2.80	2.70
May	1.85	1.75	2.65	2.65
June	1.90	1.85	2.65	2.65
July	2.00	1.90	2.65	2.65
August	3.25	2.10	2.70	2.65
September	3.25	3.00	3.10	2.90
October	2.90	2.70	3.10	3.00
November	2.60	2.00	3.15	3.10
December	2.85	2.60	3.25	3.15
Year	3.25	1.70	3.25	2.65

Thirteen Years' Prices

	Per pound— H.	L.
1923	$3.20	$2.65
1922	3.25	1.70
1921	3.00	1.70
1920	8.25	5.00
1919	9.00	5.25
1918	5.25	2.90
1917	3.60	2.20
1916	2.30	1.80
1915	2.00	1.35
1914	4.60	1.40
1913	3.85	2.75
1912	2.85	2.75
1911	2.90	2.25

Sandalwood, East India

On November 22, 1871, the price was $9.50 to $10; October 18, 1881, $7 to $8; 1891, $2.10 to $6; 1901, $3.50 to $3.75; 1911, $2.75 to $3; 1913, $5.50 to $6; 1917, December, $14.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$7.40	$7.15	$7.10	$7.00
February	7.15	7.10	7.70	7.15
March	7.20	7.10	8.00	7.75
April	7.20	7.15	7.90	7.85
May	7.15	7.10	7.85	7.75
June	7.10	7.10	7.75	7.70
July	7.10	6.90	7.65	7.65
August	6.90	6.85	7.50	7.35
September	6.85	6.75	7.35	7.35
October	6.75	6.75	7.25	7.25
November	6.75	6.75	7.15	7.00
December	6.90	6.75	7.00	6.75
Year	7.40	6.75	8.00	6.75

Sassafras, Natural, U. S. P.

On October 18, 1871, the price was $1.15 to $1.20; 1881, 57½c. to 65c.; 1891, 38c. to 42c.; 1901, 40c. to 43c.; 1911, 70c. to 75c.; 1913, 55c. to 60c.; 1918, October, $2.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$1.00	$0.80	$0.90	$0.85
February	.90	.90	.85	.85
March	.90	.90	.85	.85
April	.90	.85	.90	.85
May	.85	.85	1.00	.90
June	.85	.85	1.00	1.00
July	.85	.85	1.00	1.00
August	.85	.85	1.00	1.00
September	.85	.85	1.50	1.00
October	.85	.85	1.75	1.50
November	.85	.85	1.75	1.75
December	.85	.85	1.75	1.75
Year	1.00	.80	1.75	.85

Spearmint

On June 5, 1872, the price was $4; October 18, 1881, $2 to $2.35; 1891, $1.85 to $2.35; 1901, $1 to $1.10; 1911, $4 to $4.50; 1913, $4; 1920, February, $13.50.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.50	$2.50	$2.35	$2.35
February	2.50	2.40	2.40	2.35
March	2.35	2.30	2.50	2.40
April	2.60	2.35	2.50	2.50
May	3.00	2.75	2.50	2.50
June	3.25	3.00	2.50	2.50
July	2.25	3.00	2.50	2.50
August	3.00	3.00	2.50	2.50
September	3.00	2.85	2.50	2.50
October	2.85	2.75	2.50	2.50
November	2.60	2.50	2.50	2.50
December	2.50	2.35	2.50	2.40
Year	3.25	2.30	2.50	2.35

Eleven Years' Prices

	Per pound— H.	L.
1923	$2.50	$2.35
1922	3.25	2.30
1921	6.25	2.75
1920	13.50	6.25
1919	12.00	5.50
1918	5.50	3.40
1917	3.65	1.85
1916	1.90	1.50
1915	1.75	1.35
1914	4.00	1.50
1913	4.85	4.00

Wintergreen, Sweet Birch

On November 22, 1871, the price was $4.40 to $4.50; October 18, 1881, $3.15 to $3.20; 1891, $1.80 to $1.90; 1901, $1.40 to $1.60; 1911, $1.35 to $1.75; 1913, $1.50 to $2; 1919, December, $6.25.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$2.15	$2.10	$2.00	$2.00
February	2.10	2.10	2.00	2.00
March	2.10	2.00	2.00	2.00
April	2.00	2.00	2.00	2.00
May	2.25	2.10	2.00	2.00
June	2.10	2.10	2.00	2.00
July	2.10	2.10	2.00	2.00
August	2.10	2.10	1.95	1.95
September	2.10	2.10	1.95	1.95
October	2.10	2.10	1.95	1.95
November	2.00	2.00	1.95	1.95
December	2.00	2.00	1.95	1.95
Year	2.25	2.00	2.00	1.95

Wintergreen, Leaf, Gaultheria

On October 18, 1901, the price was $2.25 to $2.90; 1911, $4.25 to $5; 1913, $4.25 to $4.50; 1919, September, $9.75.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$5.00	$5.00	$4.00	$4.00
February	5.00	5.00	4.00	4.00
March	5.00	3.50	4.00	4.00
April	4.25	3.50	4.00	4.00
May	4.25	4.25	4.00	4.00
June	4.25	4.25	4.00	4.00
July	4.25	4.25	4.00	4.00
August	4.25	4.25	4.00	4.00
September	4.25	4.25	4.25	4.00
October	4.25	4.25	4.25	4.25
November	4.00	4.00	4.25	4.25
December	4.00	4.00	4.25	4.25
Year	5.00	3.50	4.25	4.00

Wormseed

On November 22, 1871, the price was $2.50 to $2.60; October 18, 1881, $2.25 to $2.50; 1891, $1.40 to $1.50; 1901, $1.10; 1911, $3.75 to $4; 1913, $2 to $2.20; 1918, July, $11.

	Per pound— 1922. H.	L.	1923. H.	L.
January	$4.50	$4.25	$3.90	$3.85
February	4.25	4.25	4.25	3.85
March	4.15	3.90	4.25	4.25
April	3.75	3.40	6.50	4.25
May	3.30	3.00	7.00	6.50
June	2.75	2.25	6.50	6.50
July	2.25	2.15	7.20	7.00
August	2.50	2.15	7.00	6.25
September	2.50	2.50	6.00	5.50
October	3.00	2.50	5.00	3.90
November	3.15	3.00	5.50	4.25
December	3.75	3.25	6.75	6.00
Year	4.50	2.15	7.20	3.85

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Gums, Waxes, Shellac: Market Review

Gums and waxes passed through a rather trying business year in 1923. The trend of values seemed to be generally downward and while the reductions in prices were rarely sharp, the drift in this direction was quite evident when the year was considered as a whole.

For the most part it may be said that the growth of competition was the force that gave the market its direction. Business at no time was especially good; often times it was exceptionally poor. Hence, sellers were inclined to compete strongly for the moderate amount of business in the market and this could be done only at the expense of prices.

Of course, there were exceptions to this general statement of market conditions. Shellac was notable in this respect, but shellac is always a law unto itself, not responding to or reflecting the conditions that are dominant in the gum and wax market as a whole.

Gums

Readers will find the developments in individual materials of interest. Aloe was an interesting gum throughout the entire year. Due to the bringing of the primary market under the closest kind of control headed by the activities of Dutch financiers and government officers, the Curacao gum showed a strong drift upward for the greater part of the twelve months. In January, the price was 6c. By the end of March it had risen to 8c., at which quotation the market held until October, when 8¾c. was named here. From then to the end of the year the advance was steady and reached 10½c. by the end of December.

Arabic was in contrast to aloe. The high point for the year was 21½c. per pound, reached in February. The price held into March when values dropped sharply to 16c. per pound. From then to the end of the year it was a series of price declines that featured the market. The low for the year was reached in December at 12½c. per pound and even at that price the market was still weak. The declines were caused by the over-importation of the article. The total import was 9,857,703 pounds in 1923, compared with 8,191,736 pounds in 1922.

Asafoetida was also an article under depression. Beginning in January at 32c. per pound for lump, that price held until April when competition brought quotations down to 28c. per pound. June made the market 24c. and during July and August it fluctuated between 24c. and 25c. per pound. In September, the decline was resumed and 23c. per pound became the selling price, which figure remained unchanged during October and November. The low for the year came in December when sales were made at 22c. per pound. The weakness was again due to over-importation. The total landed was 86,039 pounds which compares with 32,423 pounds imported from January 1 to September 21 in 1922.

Camphor

The price record left by the American refiners of camphor revealed but one price change during the year. Beginning at 96c. per pound in January, the price continued until August when it declined to 93c. per pound, there to remain for the balance of the year. This revealed but little change in the price situation from that in 1922 when the range of values was 96c. per pound high and 90c. per pound low.

Imported camphor failed to develop those special attributes that usually has featured this speculative article in the past. Pricewise, the trend was downward, and the drift toward lower levels was steadier than usual, even when the market had been repressed and depressed in the past.

In January, the price of imported refined dropped from 91c. to 86c. per pound, these two figures representing the high and low for that month respectively. In February, prices recovered again and once again 91c. per pound was established, and 87c. per pound proved to be the low point for the month. The definite trend downward began in April with the market at 90c. high and 88c. low. From then on—with the single exception of September when 90c. was reached—the market declined until in December when sales were made as low as 83c. per pound.

The declining market was due to two causes, which were in fact almost interlocked: one, larger imports; two, imports of synthetic camphor from Germany. The total importations of crude camphor were 3,486,082 pounds in 1923; in 1922, they were 2,460,291 pounds. Refined camphor in the amount of 4,002,243 pounds were landed in 1923; 1922| 2,690,830 pounds.

There is no means of learning exactly how much synthetic camphor arrived during the year reviewed but it was sufficiently large to reflect adversely on the consumption of natural material.

Something of a speculative attempt to advance prices was noted in September and this was about the only attempt of the kind made during the year. This was on the occasion of the Japanese earthquake. On the strength of the catastrophe, speculatively inclined operators bought heavily of spot camphor on the Monday and Tuesday following the 'quake. The price was tried out at 90c.; the "try" was a failure and within a few days the market was down around 85c. per pound.

Something of a shortage in Japanese tablets was noted. It was largely on this situation that the American refiners were able to keep their prices up despite the declining trend of Japanese slabs. Much of the demand for tablets went to the American interests and this business was good for the greater part of the year. Toward the end of the period, Japanese goods were more freely offered and there was less assurance that the American goods would continue to get the major part of business in the tablet sizes.

Waxes

There was not a great deal of price activity noted among the various waxes. Bees wax proved to be more or less steady throughout the year, although in African wax the trend was downward. In January, the high price for the year came with business booked at 24c. per pound. During that month also 23c per pound was done. In February the market was depressed to 21½c. per pound through an increase in spot offerings and a decline in the shipment costs from the European market. March, April, and May proved to be months barren of price change, the market being quiet at 21½c. per pound. In June the market was again at 22c. per pound and at that figure it prevailed through July, August and September. In October 21c. per pound was done, but November and December found the market again at the 22c. per pound level. Throughout the year there were always fair supplies of African wax available and demand was not always of the fairest. Chilean and Brazilian waxes were strong throughout the year and the quantities available were exhausted from time to time. In no instance was the available stock of either wax sufficient to turn prices weak. Prices ranged between 30c. and 26½c. per pound. In Chilean "no stocks" was more frequently reported than were prices quoted.

Candelilla suffered badly through heavy production and a poor consuming market. Prices were driven from 35c. per pound in January to 21c. per pound in May. At the latter figure it continued through June, July, August, and September. In October values recovered to 23c. per pound and it remained thereat for the balance of the year. The recovery was coincident with the decline in quantities available on spot and the lessened pressure to sell noted in the primary market. At the end of the year the spot market could not have withstood much of a demand. The latter was lacking, however, and hence any opportunity for higher prices was held in abeyance.

Carnauba wax was the victim of speculation and manipulation between various importing factors on spot. At no time during the year did the regular importing trade find business especially remunerative and this was due almost entirely to the speculative short sales made to consumers and others; the business was booked largely in one spot quarter.

North Country No. 3 will serve as an excellent example of the trend of the market. In January the market stood between 17c. and 18½c. per pound. In February it fluctuated between 18½c. and 20c. per pound. In March business was done at 21c. per pound, also at 20c. per pound. In April everything was even at 19c., with not much business doing. From May to the end of the year prices fluctuated between the extremes of 19½c. and 16½c. per pound, the latter figure being reached in October, just about the time when speculative price cutting and short selling was at its height. The material ended at 18½c. per pound in December.

From midyear to the beginning of the last quarter of the year the market was highly competitive; so much so that consumers were not inclined to trade freely and expected to see prices decline materially. During the last quarter a better market position developed, following absorption of many lots held in "outside" hands, giving a measure of control of the market into the possession of regular importars. Prices stiffened somewhat, due to the fact that the new crop was found to be several months late. The primary market had little to offer from the old crop, and hence shipment values were either even or above the spot market price. Also, from time to time Brazilian exchange advanced sharply, increasing the landed cost of shipment wax. The outlook at the end of the year was excellent, according to importers, until such time as new crop wax should be offered freely.

Japan wax was one Japanese material to feel the effects of the earthquake. The article was low for the year at 14½c. in February and high at 17½c. in December. The advance here was due to the rise in Japan, and the movement there was attributed to the increased home consumption following the earthquake. This occurred in September. The New York market was then 14½c. per pound. Prices rose very promptly to 17½c. in October, only to ease off again to 16c. during the month of December. However, conditions at the source of supply suggested that during the first quarter of the year much higher prices would rule for shipment and spot goods.

Shellac

Viewed in retrospect, the shellac market in 1923 was somewhat unlike that of recent years. It lacked the irregular, up and down, oscillating and uncertain trend which usually features this speculative material. At least it does when viewed broadly from month to month. Of course, within each week there was the usual number of fluctuations in prices in Calcutta and London, and toward the end of the year, perhaps, London gave forth more than the ordinary amount of spectacular advances and declines from day to day. However, when examined in its broadest aspect, the market on spot showed but three broad movements.

The first definite movement began in January. It was downward and carried on until the first of August, at which the second phase of the market movement began. This was a rise that persisted until October. The third phase began in October; it was a downward reaction of extended character that lasted well into the new year.

In broadly defined terms, such was the price situation. In January spot T. N. was quoted at 78c. per pound, with the market nominal, owing to small supplies that accompanied the rise of prices that had started in September of 1922 and carried on to January of 1923. From a nominal market at 78c. per pound in January, prices fluctuated to 80c. per pound and back to 78c. for the greater part of the first quarter, the market being nominal throughout the period. In April prices were down to 75c. per pound, and from that time on the decline was steady until the middle of July, at which time T. N. sold as low as 52c. per pound. Around August 1 the upward swing set in, with prices at 53c. per pound. The movement to higher ground continued until October, at which time the market had reached 65c. per pound here. That was the peak of the second phase of price movement. From then to the end of the year the trend was downward, and at the end of December New York prices were down to 59c. per pound.

The three phase movement in prices here was coincident with a record smashing export of shellac from the Calcutta market. Never in the history of the article did so much shellac leave that port for various destinations. The receipts in the United States topped all former records, and the amazing and almost unanswered question was:—Where did it all go?

Record breaking shipments suggested record making consumption, and, at least, so far as the United States was concerned, that was a fact. At but very few times during the year did shellac stock accumulate in the hands of importers. There was a short period late in the year when heavy arrivals long delayed reached this market when demand was in a decided slump. At that time offerings were exceptionally free, and prices were affected adversely. However, the greater part of the year there was little accumulation of unsold stocks—an indication that most of the buying at Calcutta and London had been to cover sales already made to consuming interests in this country.

According to the export figures cabled weekly from Calcutta, the total export to the world was 296,085 packages. In detail by months the data are as follows:—

Orange Shellac Shipments

	Packages,				
	U. S.	U. K.	Continent.	Other Ports.	Total.
U. S.	24,042	12,180	3,263	664	40,149
Feb.	21,306	7,647	2,201	810	31,964
Mar.	15,145	5,895	2,589	859	24,488
Apr.	14,923	2,336	2,937	488	20,684
May	18,727	5,294	3,544	2,176	29,732
June	13,728	8,629	4,276	1,680	28,813
July	14,659	2,859	2,611	1,378	21,507
Aug.	15,895	944	1,370	843	19,052
Sept.	19,779	3,415	2,342	156	25,692
Oct.	10,368	3,436	2,922	282	17,008
Nov.	10,211	6,625	3,048	1,453	21,317
Dec.	9,395	3,993	1,931	860	16,179
Totals...	191,178	63,253	33,034	11,600	296,085

According to statistics from Washington, the total arrival of shellac—all kinds included—for 1923 was 38,446,775 pounds as against 25,162,510 pounds for 1922.

Later revision may change the totals somewhat, but the T. N. shipments from Calcutta in the main are correct. They show an increase of approximately 45,179 packages over the exports to the world in 1922, and an approximate gain of 33,754 packages in the movement to the United States over 1922.

First Quarter

The quarter opened with the market in strong position. Scarcity of supplies, slowness of deliveries, sold up condition of importers and bleachers, high prices and sustained buying in foreign markets prevailed. About the middle of January a strike by the dock workers broke in Calcutta, and this did not tend to ease the market off much at that time. It lasted but a week, but that was enough to make the late February and early March position potentially firmer. Demand at the end of the month was excellent as between importers and dealers on one hand, and also between importers themselves. The break in prices at Calcutta came in early February, but, owing to the sold up condition of the New York market, prices were not affected. For the balance of the quarter the Calcutta market fluctuated between 68c. and 71⅜c. per pound, and during this time the New York market was about nominal. Most importers had sold far ahead, and whatever trading in prompt delivery goods was done was by second hands.

T. N. Prices—First Quarter

Date.	New York.	Calcutta.	London.
Jan. 4.....	$0.78 Nom.	$0.72½	$0.72½ (Mar.)
Jan. 11.....	.80 Nom.	.71¼	.68 (Mar.)
Feb. 1.....	.80 Nom.	.72½	.73 (Mar.)
Feb. 15....	.80 Nom.	.68	.71 (Mar.)
Mar. 1.....	.78 Nom.	.70½	.68 (May)
Mar. 14....	.78 Nom.	.71⅜	.73 (Mar.)

Second Quarter

Early in April there came a lull in general buying. Up to that time the stimulus of heavy orders going into the Calcutta market plus the nominal situation on spot had been sufficient to keep values high. Shipment of 60,493 packages to the United States during the first quarter of the year had the effect of providing consumers here with shellac enough to permit a reduction in trading. During the second quarter the shipments decreased to 47,378 packages; this was a loss of 13,115 packages compared with export to the United States during the first quarter. Decline in prices was steady during the second quarter; the market opened at 75c. and closed the quarter at 56c. per pound on spot.

Once this decline started in earnest, the consuming trade withdrew from the market promptly—as usual. The second hands holding available spot supplies as well as goods afloat were inclined to get from under and hence offerings became more free at the declining quotations. Late in the second quarter figures in cables from Calcutta placed the Bysaki crop at 185,000 packages, of which 35,000 had been delivered at Calcutta by the end of June. The market at this time was affected by a decidedly bearish sentiment.

T. N. Prices—Second Quarter

Date.	New York.	Calcutta.	London.
April 5.....	$0.75 Nom.	$0.68⅝	$0.70½ (May)
April 12....	.74	.66	.66¼ (May)
May 3.....	.64	.56	.61¼ (May)
May 17.....	.64	.57	.59½ (Aug.)
June 3.....	.57	.51½	.53⅝ (Aug.)
June 14....	.56	.52¼	.53¼ (Aug.)

Third Quarter

The declining market held true to form during the first two weeks of the third quarter. By the middle of July New York was down to 52c. per pound, and Calcutta around 44c. per pound. This proved to be about the bottom, for almost as promptly as Calcutta struck 44c. per pound prices rebounded, and late in the week of July 9 around 48c. per pound. The rise brought an increased buying interest in both spots and futures. The advance at Calcutta continued, and early in the week of the 16th prices there were up to 51¼c. per pound. During the same week the advance was pressed, and by the 19th quotations came in at 53c. per pound. New York did not respond immediately to the rise and goods continued to be available at 52c. per pound.

The week of July 23 found prices reactionary at Calcutta, with the market down to 48½c. per pound again. The New York spot, contrariwise, moved up to 53c. per pound. Probably nothing can better illustrate the sensitive and delicate situation that had developed following the reaction upward in the previous weeks. The next week found the markets firming up and apparently preparing for the swift rise that came on August 8, when Calcutta went up to 52½c. per pound and the New York spot up to 58c. per pound. The end of that week found the buying trade in this country bidding actively for supplies and giving to the market a very strong undertone. By the middle of September prices on spot were strong at 62c. per pound and Calcutta was wanting 56¾c. per pound. By the end of September the strong market had justified the importers' bullish views and developed a second-hand market. During the last week of the month importers wanted 63c. to 65c. per pound, and second hands scalped the market down to 61c. per pound; second hands con-

trolled the situation to a material degree and the prices they named were ignored by the first hands.

The wider interest developed by the bull markt is shown somewhat by the third quarter shipment of 50,333 packages to the United States, being a gain of 2,955 packages over that of the second quarter.

T. N. Prices—Third Quarter

Date.	New York.	Calcutta.	London.
July 5.....	$0.52	$0.56	$0.48¾ (Aug.)
July 19.....	.52	.48	.48¾ (Aug.)
Aug. 2.....	.53	.48½	.48¾ (Aug.)
Aug. 16.....	.57	.52½	.56 (Aug.)
Aug. 30.....	.59	.55	.55 (Oct.)
Sept. 13....	.62	.56¾	.56⅞ (Oct.)

Final Quarter

About the first of October New York T. N. was priced at the high for the advancing market—namely, 65c. per pound; at that time, Calcutta was about 64½c. per pound. The reversal of trend was very prompt, as during the week ended October 6 spot T. N. was down to 63c. per pound from second hands and Calcutta at 61½c. per pound was not considered a steady market.

This decline found the local first hands firm in their prices if not their convictions for the future trend of values. With their production of bleached goods sold months in advance they were, in fact, buyers in the local market at 61c. per pound for T. N., which compares with their own asking figures of 65c. per pound. Second hands were ready sellers at 62c. per pound and seemed to have plenty of material to offer. There was a good share of the third quarter shipment of 50,333 packages that came into the New York market when buyers were not yearning to do business, and at one time there appeared to be something like a glut of supplies. However, the importers were buyers whenever prices seemed right, and with T. N. at 61c. in Calcutta and two months away by steamer, spot T. N. at 61c. per pound looked like a good buy to several importing interests.

By the week of October 22 there was much selling pressure noted applied by owners of T. N. aboard ships then nearby New York. Prices were drifting downward from day to day and second hands were doing business at 60c. when many importers were holding out for 65c. per pound, or 5c. over the Calcutta price obtaining of October 16. Goods were sold aboard ship nearby at as low as 59c. per pound during the week of October 15. At this time, importers were not anxious sellers; they viewed the Calcutta market as statistically strong and anticipated a comeback in prices—an expectation that was not realized. The following week witnessed a reaction upward in Calcutta and prices stood at 63½c. per pound. New York continued under pressure with asking prices around 59c. to 62c. per pound as to seller.

The first week in November developed virtually no change in either Calcutta or New York. But during the week ended Nov. 12, New York sold at 58c. from second hands and importers named 62c. per pound, this being an indication that their views were not so firm as they had been. Importers were active buyers, however, at the low second hand prices. Floating forwards were prices and sold at 57c. per pound when in nearby position. Calcutta was around 60½c. per pound on Nov. 8.

It was during the third week of November that some quarters suggested that with so much shellac being poured into New York with the arrival of each ship, and considering the depressed state of demand and prices, consumers would be more inclined to satisfy their needs here. The same quarters suggested that this would react on the buying at Calcutta during the last quarter, providing a declining market for that period, but shortening up on the amount of shellac to be landed in the United States during the first quarter of 1924.

In some measure this proved to be a wise thought. The exports from Calcutta to the United States during the final quarter of the year totaled 29,974 packages,—a drop of 20,359 packages, or an average month's import based on recent experience.

On December 6 Calcutta was quoted at 59¾c. per pound with spot values around 59c. still. On December 16 Calcutta came in at 60.4c. per pound and still spot remained at 59c. per pound. December 20 found Calcutta at 59c. per pound; New York, 59c. per pound. The last quotation on December 27 from India named a decline to 57c. per pound; spot, still 59c. per pound.

In considering the end of the year, something should be said about London. At the beginning of December, 60¼c. was the value of London spot goods. On December 13, London was down to 56½c.—compared with Calcutta at 60.4c. per pound. December 20 London was 56.3 for spot; Calcutta, 59c.; New York, 59c.

At all times London was much the cheapest market to buy in, and this seemed to indicate the development of weakness there that might offset later on the small arrivals expected because of the sharp decrease in fourth quarter shipments from Calcutta.

The market at the close of the year was quiet with demand limited and secondhands inclined to scalp the market whenever firm orders appeared.

T. N. Prices—Fourth Quarter

Date.	New York.	Calcutta.	London.
Oct. 4.....	$0.65	$0.64½	$0.63 (Oct.)
Oct. 16.....	.62	.61	....
Nov. 1.....	.60	.61¾	.60½ (Dec.)
Nov. 15.....	.58	.61	.59½ (Dec.)
Nov. 29.....	.59	.61½	.60¼ (Dec.)
Dec. 13.....	.59	.60	.56½ (Mar.)
Dec. 27.....	.59	.59¼	.57½ (Mar.)

In ending the review, the shipment of shellac from the hinterland into Calcutta for export to the world is given. The total for the 12 months of 1923 was 19,953 tons, which figure compares with 16,248 tons.

Gums, Shellac, Waxes: Record of Prices

Gums

Aloes, Curacao, Cases

On November 22, 1871, the price was 20c. to 21c.; October 18, 1881, 13c. to 15c.; 1891, 2½c. to 5c.; 1901, 3¾c. to 4¼c.; 1911, 7¼c. to 7½c.; 1913, 8c. to 8½c.; 1918, April, 11c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.07	$0.07	$0.06½	$0.06
February	.07	.07	.08	.06½
March	.07½	.07	.08	.08
April	.07½	.07½	.08½	.07¾
May	.07	.06	.08	.07¾
June	.06	.06	.08½	.08
July	.06	.06	.08½	.08
August	.06	.06	.08½	.08
September	.06	.06	.08¾	.08
October	.06	.06	.10½	.08¾
November	.06	.06	.10½	.10½
December	.06	.06	.10½	.10½
Year	.07½	.06	.10½	.06

Fourteen Years' Prices

	H.	L.
1923	$0.10½	$0.06
1922	.07½	.06
1921	.08½	.06
1920	.10	.08½
1919	.10	.08
1918	.11	.08
1917	.09½	.08
1916	.14	.09
1915	.15	.11½
1914	.16	.08
1913	.11	.06½
1912	.11½	.07¾
1911	.08	.06½
1910	.08¾	.06¾

Arabic, Cleaned Amber, Sorts

On October 18, 1871, the price was 19c. to 21c.; 1881, 10½c. to 12½c.; 1891, 23c. to 25c.; 1901, 13c. to 26c.; 1911, 11¼c. to 11¾c.; 1913, 8½c. to 9c.; 1917, October, 33c.

	1922. H.	1922. L.	1923. H	1923. L.
January	$0.10½	$0.10½	$0.21	$0.19
February	.10½	.11½	.21½	.21½
March	.10½	.10	.21½	.16
April	.10½	.10	.16	.15
May	.12	.10½	.15	.14¾
June	.12½	.12	.14¾	.14¾
July	.16	.14	.14¼	.14
August	.16	.15¾	.14	.13½
September	.15½	.15¼	.13½	.13½
October	.15½	.15¼	.13½	.13½
November	.15½	.15	.13¼	.13
December	.15½	.15½	.13	.12½
Year	.16	.10	.21½	.12½

Asafetida, Lump

On October 18, 1871, the price was 55c.; 1881, 13c. to 14c.; 1891, 11c. to 15c.; 1901, 26c. to 30c.; 1911, 75c. to $1.25; 1913, 30c.; 1919, June, $6.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.33	$0.30	$0.32	$0.32
February	.30	.30	.32	.32
March	.30	.30	.32	.32
April	.30	.30	.32	.28
May	.30	.30	.28	.28
June	.33	.30	.24	.24
July	.40	.40	.25	.24
August	.40	.35	.25	.25
September	.38	.30	.23	.23
October	.38	.35	.23	.23
November	.35	.35	.23	.23
December	.35	.32	.22	.22
Year	.40	.30	.32	.22

Camphor, American, Refined

On October 18, 1871, the price was 69½c. to 70c.; 1881, 24½c. to 25c.; 1891, 43c.; 1901, 57c. to 57½c.; 1911, 45c. to 46c.; 1913, 42½c. to 46c.; 1919, September, $3.30.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.92	$0.92	$0.96	$0.96
February	.96	.96	.96	.96
March	.96	.96	.96	.96
April	.96	.96	.96	.96
May	.90	.90	.96	.96
June	.90	.90	.96	.96
July	.90	.90	.96	.96
August	.90	.90	.96	.93
September	.90	.90	.93	.93
October	.90	.90	.93	.93
November	.93	.90	.93	.93
December	.96	.96	.93	.93
Year	.96	.90	.96	.93

Camphor, Japan, Refined, Slabs

On October 18, 1871, the price was 69½c. to 70c.; 1881, 24½c. to 25c.; 1891, 43c.; 1901, 57c. to 57½c.; 1911, 45c. to 46c.; 1913, 42½c. to 46c.; 1919, October, $3.65.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.92	$0.90	$0.91	$0.86
February	.96	.91	.91	.87
March	.90	.88	.91	.90
April	.86	.80	.90	.88
May	.78	.76	.88	.88
June	.79	.78	.88	.87
July	.80	.79	.87	.86
August	.83	.82	.86	.85
September	.89	.83	.90	.85
October	.89	.86	.87	.85
November	.91	.84	.85	.85
December	.94	.94	.85	.83
Year	.94	.76	.91	.83

Myrrh

On October 18, 1871, the price was 42c. to 46c.; 1881, 27c. to 30c.; 1891, 16c. to 40c.; 1901, 12c. to 25c.; 1911, 13c. to 18c.; 1913, 13c. to 16c.; 1919, February, $1.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.40	$0.40	$0.45	$0.45
February	.40	.38	.45	.45
March	.38	.38	.45	.45
April	.38	.38	.35	.35
May	.50	.38	.35	.35
June	.50	.50	.35	.35
July	.50	.50	.35	.35
August	.47	.36	.35	.35
September	.50	.36	.35	.34
October	.50	.46	.34	.34
November	.46	.45	.34	.34
December	.55	.45	.30	.30
Year	.55	.36	.45	.30

Tragacanth, Aleppo, Firsts

On October 18, 1871, the price was 60c. to 82½c.; 1881, 40c. to 75c.; 1891, 24c. to 48c.; 1901, 60c. to 65c.; 1911, 35c. to 77c.; 1913, $1.25 to $1.30; 1920, March, $5.25.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.65	$2.60	$1.75	$1.75
February	2.60	2.25	1.70	1.70
March	2.25	2.20	1.70	1.70
April	2.20	2.00	1.60	1.60
May	2.00	1.85	1.60	1.60
June	1.85	1.80	1.55	1.54
July	1.80	1.75	1.50	1.50
August	1.75	1.75	1.50	1.45
September	1.75	1.75	1.45	1.45
October	1.75	1.75	1.45	1.45
November	1.75	1.75	1.45	1.40
December	1.75	1.75	1.35	1.35
Year	2.65	1.75	1.75	1.35

Tragacanth, Aleppo, Seconds

	1922. H.	1922. L.	1923. H.	1923. L.
January	$2.30	$2.30	$1.55	$1.55
February	2.30	1.80	1.50	1.50
March	1.80	1.80	1.50	1.50
April	1.80	1.80	1.40	1.40
May	1.85	1.80	1.40	1.40
June	1.70	1.65	1.40	1.35
July	1.65	1.55	1.35	1.35
August	1.55	1.55	1.35	1.30
September	1.55	1.55	1.30	1.30
October	1.55	1.55	1.30	1.30
November	1.55	1.55	1.30	1.30
December	1.55	1.55	1.20	1.20
Year	2.30	1.55	1.55	1.20

NOTE:—Owing to the American camphor refiners inability to secure supplies of crude beyond that necessary to meet their government contracts, they withdrew all quotations in October, 1918, when the influenza epidemic forced the rise in Japanese refined camphor to $4 per pound.

Shellac

Shellac, T. N.

On October 18, 1871, the price was 31c. to 42c.; 1881, 29c. to 30c.; 1891, 21c. to 23c.; 1901, 23c. to 25c.; 1911, 14c. to 14½c.; 1913, 21½c. to 23c.; 1920, January, $1.60.

(In bags)

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.66	$0.64	$0.81	$0.78
February	.74½	.66	.80	.80
March	.82	.74	.78	.76
April	.82	.78	.75	.69
May	.77	.72	.64	.58
June	.80	.78	.58	.54
July	.78	.74	.53	.51
August	.72	.65	.58	.53
September	.61	.57	.62	.59
October	.67	.54	.65	.60
November	.72	.70	.60	.58
December	.76	.72	.59	.59
Year	.82	.54	.81	.51

Twenty-three Years' Prices

	H.	L.
1923	$0.81	$0.51
1922	.82	.54
1921	.70	.44
1920	1.60	.65
1919	1.50	.46
1918	.68	.57
1917	.60	.39
1916	.39	.20
1915	.21	13½
1914	.21	.14
1913	.23½	.16½
1912	.16½	.13½
1911	.18	.13½
1910	.19½	.14
1909	.20½	.14
1908	.29	.20
1907	.48	.26
1906	.50	.42
1905	.46	.42
1904	.52	.42
1903	.52¾	.20½
1902	.40	.24
1901	.30	.14
1900	.15	.14½

Shellac, D. C.

On August 22, 1877, the price was 26c.; 1881, 38c. to 39c.; 1891, 30c. to 31c.; 1901, 33c. to 34c.; 1911, 22c. to 23c.; 1913, 27c. to 28c.; 1920, July, $1.75.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.80	$0.80	$1.03	$1.02
February	.84	.80	1.03	1.03
March	1.00	.84	1.03	1.03
April	1.00	1.00	1.03	1.03
May	1.00	.91	1.03	1.03
June	.99	.92	1.03	1.03
July	.99	.99	1.03	.78
August	1.03	.99	.80	.78
September	1.03	1.00	.82	.80
October	1.00	.98	.84	.84
November	.98	.97	.84	.81
December	1.02	.97	.81	.81
Year	1.03	.80	1.03	.78

Shellac, V. S. O.

On June 15, 1881, the price was 37c. to 40c.; October 18, 1881, 34c. to 35c.; 1891, 26c. to 27c.; 1901, 23c. to 30c.; 1911, 21c. to 22c.; 1913, 26c. to 27c.; 1920, July, $1.75.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.80	$0.80	$1.03	$1.03
February	.83	.80	1.03	1.03
March	1.00	.83	1.03	1.03
April	1.00	1.00	1.03	1.03
May	1.00	.91	1.03	.95
June	1.00	.91	.95	.95
July	1.00	1.00	.95	.78
August	1.03	1.00	.80	.78
September	1.03	.99	.82	.80
October	.99	.97	.84	.84
November	.98	.98	.84	.81
December	Nominal		.81	.81
Year	1.03	.80	1.03	.78

Shellac, Bleached, Bone Dry

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.77	$0.75	$0.95	$0.90
February	.84	.77	.93	.93
March	.94	.86	.90	.90
April	.94	.94	.87	.82
May	.92	.88	.75	.70
June	.92	.90	.69	.66
July	.92	.86	.64	.63
August	.82	.87	.68	.63
September	.75	.74	.72	.70
October	.79	.72	.74	.73
November	.86	.86	.73	.73
December	.87	.86	.71	.70
Year	.94	.72	.95	.63

Shellac, Bleached, Commercial

On August 22, 1877, the price was 35c.; October 18, 1881 35c. to 36c.; 1891, 24c. to 30c.; 1901, 22c. to 24c.; 1911, 15c. to 20c.; 1913, 20½c. to 25½c.; 1920, January, $1.45c. to $1.75.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.67	$0.65	$0.80	$0.80
February	.75	.65	.83	.83
March	.75	.75	.80	.80
April	.75	.75	.77	.72
May	.78	.73	.65	.62
June	.81	.80	.59	.56
July	.81	.78	.56	.56
August	.78	.71	.63	.58
September	.64	.63	.61	.59
October	.64	.58	.66	.66
November	.71	.71	.66	.66
December	.71	.71	.66	.66
Year	.81	.63	.83	.56

Waxes

Bees, African

On May 29, 1872, the price was 31c. to 32c.; October 18, 1881, 23c. to 24c.; 1891, 22c. to 24c.; 1901, 33c. to 35c.; 1911, 32c. to 33c.; 1913, 34c. to 35c.; 1918, November, 47c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.15	$0.13½	$0.24	$0.23
February	.15	.14½	.23	.21½
March	.17	.14½	.21½	.21½
April	.19	.18	.21½	.21½
May	.20	.19	.21½	.21½
June	.26	.24½	.22	.21½
July	.24	.23	.22	.22
August	.24	.23	.22	.22
September	.22	.21	.22	.22
October	.21	.21	.21	.21
November	.24	.23	.22	.22
December	.24	.24	.22	.22
Year	.26	.13½	.24	.21

Bees, Refined

On May 29, 1872, the price was 60c. to 65c.; October 18, 1881, 30c. to 41c.; 1891, 40c. to 45c.; 1901, 38c. to 50c.; 1911, 34c. to 36c.; 1913, 36c. to 37c.; 1918, November, 50c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.22	$0.21	$0.30	$0.30
February	.22	.22	.30	.30
March	.24	.22	.30	.30
April	.24	.23	.30	.30
May	.25	.24	.30	.30
June	.30	.29	.30	.30
July	.30	.30	.30	.30
August	.30	.30	.30	.30
September	.26	.26	.30	.30
October	.26	.26	.30	.30
November	.28	.28	.28	.28
December	.28	.28	.28	.28
Year	.30	.21	.30	.28

Carnauba, N. C., No. 3

On January 8, 1872, the price was 14c. to 16c.; October 18, 1891, 15c. to 20c.; 1901, 12c. to 13½c.; 1911, 37c. to 38c.; 1913, 33c. to 33½c.; 1918, June, 81c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.14½	$0.12	$0.18½	$0.17
February	.16	.15½	.20	.18½
March	.16	.16	.21	.20
April	.16	.16	.19	.19
May	.16½	.16	.19½	.18¾
June	.16½	.16½	.18¾	.18½
July	.16	.15	.18½	.18
August	.17	.17	.18	.18
September	.20	.20	.18	.17
October	.18	.17	.18½	.16½
November	.17½	.17	.18½	.18½
December	.18	.17½	.18½	.18½
Year	.20	.12	.21	.16½

Japan

On January 12, 1881, the price was 15c. to 16c.; October 18, 1881, 12½c. to 13c.; 1891, 9c. to 10c.; 1901, 7¼c. to 7½c.; 1911, 8½c. to 8¾c.; 1913, 9c. to 9¼c.; 1918, September, 27½c.

	1922. H.	1922. L.	1923. H.	1923. L.
January	$0.19	$0.18	$0.15	$0.14¾
February	.20	.18	.15	.15
March	.17¾	.17	.15	.14½
April	.17	.17	.15	.15
May	.17	.16¼	.16	.14½
June	.17	.16	.16	.15¾
July	.17	.16½	.16	.16
August	.16	.15½	.16	.15½
September	.15½	.15	.14½	.15½
October	.15	.14½	.17½	.17½
November	.15	.15	.16½	.16
December	.15	.15	.17	.16
Year	.20	.14½	.17½	.14½

Fiftieth Anniversary Number

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Fertilizer Materials: Market Review

Consumption of fertilizers was liberal during 1923. There remain many sections of agricultural America where the use of refertilization agents has not become as prevalent as the best interests of the farmers warrant, but gains are being made each year. Always the outlook is called good—but selling methods are not what they should be to produce the results in volume that are possible. So it was during 1923 when the total tonnage sold was close to 7,000,000 tons, a gain of about a million over the preceding year, but not the gain that might have been made.

Total sales in the States where records are available for 1923, in which the sales are approximately three-fourths of domestic consumption, were as follows:—

	Tons.
Alabama	447,957
Arkansas	78,332
Connecticut	75,891
Delaware	39,120
Florida	388,919
Georgia	675,868
Indiana	195,195
Iowa	11,600
Kentucky	89,486
Louisiana	104,782
Maine	172,000
Massachusetts	63,709
Mississippi	216,889
New Jersey	156,581
North Carolina	1,081,811
Ohio	303,120
South Carolina	688,087
Tennessee	106,391
Texas	78,350
Virginia	422,250
Total	5,396,338

In some respects the business of the year was not satisfactory, but there were good as well as bad features, and the year was a prosperous one for producers of some fertilizer materials. A great deal of price cutting was engaged in by manufacturers of complete fertilizers, and, although probably increasing the volume of their business, the character of the competition was such as to restrict profits greatly. Considering the cost of other things, consumers got their fertilizers cheap. Some of the most important fertilizer materials were selling at less than prewar prices. This was the case with potash salts, and before the end of the year was also true of sulphate of ammonia. Acid phosphate was cheap, with the free offering of distressed lots below nominal market quotations. While organic ammoniates were not low, the average cost of materials was very reasonable, and the competition between manufacturers held down the margin of profit on mixed goods.

One of the features of the year was the spread of the movement toward group buying. Farmers were encouraged to organize for the purpose of getting full discounts in their purchases of fertilizers, and mixers did more "group" buying than ever before. Whether this buying through committees worked to the advantage of anybody is another matter, but there was a lot of experimenting with it. The different groups of manufacturers bought nitrate of soda through committees, and an arrangement was made with the potash importers and producers by which the group buyers were made the distributors of potash salts, and the smaller consumers were sent to their business competitors to do their buying. The plans which will be made this year for the buying of fertilizers and fertilizer materials will show how successful the industry considers the plan of group buying through purchasing committees. It will also be seen whether importers of potash consider the plan of selling through consumers to be a success or not.

Nitrogenous Materials

Interest in fertilizer materials is always largely centered in the nitrogenous materials. As long as both Germany and France are sending potash here freely, there never can be any shortage of potash salts. This country is so well supplied with phosphates that the great question in the acid phosphate business is that of holding down production to the demands of consumption.

It has been maintained by many that, until there is a great deal more synthetic material produced than there is today, nitrate of soda must be the dominating factor in the market for nitrogenous fertilizer materials. During a part of 1913, however, nitrate of soda was relatively so much higher than sulphate of ammonia that its consumption was interfered with to some extent. In spite of this it was not a bad year for importers of nitrate of soda, and there was a great deal more brought in from Chile than there was during 1922. Imports for 1923 were 891,679 tons, as compared with 542,464 tons for 1922. During the last six months of the year, however, the exports from Chile to this country were not quite so large as they were in the latter half of 1922. Chilean production during the second half of the year was 1,032,000 tons, against 635,000 tons in the corresponding period of 1922.

There was a large increase in domestic consumption of sulphate of ammonia last year. When the large consumers made their annual contracts in the spring, the amount contracted for was about 20 percent larger than the contract purchases made at the same time in 1922. There was an increase in production, and exports were about the same. About 550,000 tons of sulphate of ammonia were produced in the United States last year, and the exports were 150,544 tons, leaving 400,000 tons for domestic consumption. In 1922 exports were 147,333 tons; production, about 450,000 tons.

While this material was gaining at home, American producers were losing some of their foriegn business to Great Britain. This is particularly true with reference to business with Japan. British exports jumped from 144,317 tons in 1922 to 253,287 tons in 1923. So that while in 1922 they were less than the exports from this country, in 1923 they were 102,743 tons more. Sulphate of ammonia is the only fertilizer material upon which there is a duty, and it is very probable that had there been no duty, a considerable amount of British sulphate would have been shipped into this country. In 1922 the United States furnished Japan with practically all the sulphate it imported, but last year Japan imported 60,117 tons from Great Britain, as compared with 1,255 tons in 1922.

The estimate of 550,000 tons as the 1923 production of sulphate of ammonia in this country—it is approximately correct—shows an increase of about 100,000 tons over the production of the previous year. Before the war this country imported a large amount of this material from Great Britain, but the United States is now a much larger producer than Great Britain, as the United Kingdom produced only about 400,000 tons in 1923 (350,000 tons in 1922). No sulphate of ammonia was exported from the United Kingdom to the United States during 1923.

The rapid expansion of the sulphate of ammonia business in recent years would not of course have been possible had it not been for the activity in the iron and steel industry, as it is all produced by the by-product coke oven process. In 1921 the producing capacity of this country was figured at 550,000 tons a year, and two years later the actual output had risen to what had been producing capacity. In 1916 the producing capacity of this country was placed at 183,000 tons.

The increasing competition between sulphate of ammonia and nitrate of soda was one of the features of the year's business. When the import demand for sulphate declined, because of the cheaper prices quoted by British producers, export prices of sulphate of ammonia declined. The domestic price did not come down as much as the export quotation, but it did come down to the extent that spot material was bought below contract prices. When this break occurred an effect was undoubtedly felt in the nitrate of soda market.

The largest single producer of sulphate of ammonia in this country sells direct, but most of the other makers sell through a central distributing agency, and most of the business is on contracts placed in the spring and running until the next spring. In England all the producers are in a combine, and during 1924 some of the Canadian makers joined this British combination. Because of the selling plan there is not the active competition among sulphate producers that there is in some lines.

In the nitrate of soda market the only real competition comes when there is some resale material offering, for the market is dominated by a combine of Chilean producers which in this country would be called a "trust." This combine was to have come to an end at the close of 1923, but during the year an agreement was reached which extended its life for six months. There was also active propaganda started to assure the renewal of the agreement for another five years after next June.

During the year the United States Government did considerable investigating of the nitrate situation, but the benefit of this to American consumers is not apparent. It is reported that a part of the Chilean producers are not in favor of continuing the life of the Nitrate Producers' Association. That the present system of distribution in this market is not popular with American consumers is easy to understand, and much complaint was heard during the year about the price of this material.

The year was a satisfactory one for the Chilean producers, it is claimed in the advices sent out from London. Stocks in Chile were placed at 862,000 tons at the end of the year, as compared with 1,225,000 tons at the end of 1922. The visible supply in Europe and Egypt at the end of the year was 671,000 tons; in the United States, 202,000 tons; other countries, 12,000 tons; making the total supply in sight at the end of 1923, 1,647,000 tons, as compared with 1,912,500 a year previous. It is said, however, that a large part of the stocks in Europe were unsold, and the visible supply credited to this country did not include about 89,000 tons carried by the United States War Department as a reserve supply.

Fish scrap, dried blood and vegetable oil meals have become so popular with manufacturers of feedstuffs for animals and poultry that they have become too costly for the continuation of their once extensive use in fertilizer mixtures. Manufacturers of the latter products have turned to cheaper organic nitrogenous materials, the tankages and garbage reduction residuals not fit for feeding. The use of organic ammoniates, on the whole, is gradually giving way to use of sulphate of ammonia or nitrate of soda. In view of the growing demand for standard mixtures of high analysis, the reason for preferring the stable chemical nitrogenous components is clear.

Potashes

Imports of potash salts were heavy during 1923. The total for the year was 665,465 tons, against 567,402 tons in 1922. Sales apparently did not increase in proportion, but deliveries were lively, as most of the supplies brought in were on contracts with the group buyers. The greater part of the gain in imports was due to manure salts, shipments of which aggregated 273,344 tons, against 195,005 tons in 1922. Imports of other salts compared with 1922 as follows:—Muriate, 135,497 tons, against 161,546 tons; sulphate, 63,578 tons, against 57,719 tons; kainit, 160,211 tons, against 149,857 tons; other potash-bearing materials, 32,826 tons, against 3,295 tons

Overloading of the domestic market broke the price of potash salts over the year to a level below that prevailing before the war. This fact, however, did not stimulate lively buying on the part of the majority of fertilizer mixers, who were obliged, under the group contract selling plan put in force during the year, to go to their big competitors for supplies. Naturally, the quantities available at resale were at no time large. At times there was "scare talk" in domestic circles about the dire possibilities which threatened because of the occupation of western Germany by the French and Belgians. It was apparent, however, that stocks at unhampered German ports were ample for any demand that might arise in the United States, and all the time shipments were being rushed to this country, with the evident purpose of assuring against eventual tie-ups or possible seizure by the occupational forces.

Not so much as in previous years was heard during 1923 about American potashes. Some little production was kept up, most of the output going to the western part of the country, where domestic producers had an advantage in transportation. Importations at Pacific coast ports, however, showed considerable strength. It would seem, therefore, that the domestic supply has not been materially increased. Recent reports have had to do with the possibilities of getting potash out of water hyacinth ash—there is always a potash scheme in the air. The government is planning to investigate the potash deposits disclosed by oil-well drilling in Texas. Development of these resources has begun to interest capital, but production has not approached even the promising stage.

The satisfactoriness of the buyers' group contract plan adopted in the selling of potash in this country by both French and German producers has not been proved. The group buyers who are the big consumers, were designated as the first-hand distributors. They got a discount of 10 percent from list prices. Other consumers did not rush to take advantage of the new distribution plan, and the slackness of demand eventually led to offers of discounts up to 8 percent on resales toward the close of the year, with talk of efforts being made to get a rebate on importations, so that second-string buyers might be allowed 10 percent. In so far as definite information could be had, the rebating did not take place. The inside groups consequently began an effort to hold the resale discount at 5 percent. Buying being largely on the order of the recently popular short-term basis, demand showed little effect, either way, of the wrestling with discounts. Stocks at the year-end were heavy.

Phosphates

Production of phosphate rock decreased about 4 percent in 1922, and although that year had been none too good in the matter of prices, sales, increasing some 17 percent, had reduced stocks about 81,000 tons over the year. So, 1923 started off rather encouragingly. During the early months of the new year business was good, particularly in acid phosphate, but this condition did not last long. The heavy season in phosphates runs but a few months on both sides of the year-end. Taking the past year as a whole, the basic phosphatic fertilizer industries did not have a good business.

The phosphate resources of the United States are practically immeasurable. It would be easily possible to produce many times the quantities of rock and the mixture known as acid phosphate or superphosphates that can be sold. Domestic demand is of secondary importance in the matter of phosphate rock, and the foreign demand last year was not what it should be.

The phosphate requirements of Europe are heavy. Germany is a particularly good potential consumer. But Germany, last year, was in no position to pay for the phosphate rock it really needed, and sales in that direction left much to be desired. No European country was in good buying shape during the year. It is, in a way, surprising that the foreign consumers managed to take as much as they did.

Production costs are the bane of the phosphate rock industry. The Florida producers rely on fuel oil for their power plants, and were a little better off after their busy season last year because of the drop in crude oil prices. As they usually got their supplies of fuel oil from Mexico, the diminished exports of Mexican oil militated against their full enjoyment of the advantages offered by the local oil market. The development of electric reduction processes in the rock industry has promised a measure of relief. This, however, awaits further progress in the gigantic water power undertakings in the South. Production costs, on the whole, increased last year. The market was so weak that producers could not cover this increase, and in spite of their efforts to hold out for a profit, there was at all times a deal of material available at prices below producers' quotations.

Production of phosphates in other parts of the world, Morocco, Tunis, Algeria, Egypt, and several islands in the Pacific Ocean, has been developed extensively during the past few years. This has cut into the export trade of American producers, but prices everywhere have shown a tendency to decrease. The acid phosphate industry of Russia is recovering slowly, and in Germany some work has been done in the production of clinker phosphates. The British industry is handicapped by high costs and low market values. Basic slag seems to be gaining in Britain at the expense of the acid mixture.

Although producers of both phosphate rock and acid phosphate kept their operations at a minimum during the year, the markets were difficult to keep firm. Acid phosphates were priced at $9 to $10 when the year opened, but the inside figure did not hold. At the end of the first quarter, business was being done as low as a $7.75 quoted level.

Prices weakened further about midsummer, $7.50 per ton being quoted from August, practically to the close of the year. A little more firmness was noticeable in December.

Phosphate rock, in the face of a carryover of about 840,000 tons from 1922, was not in so firm a position as acid phosphate in the early months of the year. Florida land pebble was quoted at $2.50 to $2.75 in January, 50c. to 75c. below the level of early 1922. Production was curtailed to a great extent, and a little better tone was noticeable in the market as a consequence and also because increasing costs made it imperative that producers ask a higher price. The best that could be done by them was a top figure of $3 per ton, and this became the ruling quotation in March. About the time that acid phosphate weakened, the price of rock was boosted another 25 cents, and the quotation stayed at $3.25 from August through the rest of the year.

Bone materials were strong from January to July, but weak through the rest of the year. Importations at times added a depressing weight to the market and forced prices down. The midsummer break was from $38 per ton to $28. Business was dead during the greater part of the year.

Imports of phosphatic fertilizer materials in 1923 totaled 67,336 tons, valued at $1,882,644, against 37,105 tons ($931,595) in 1922. Exports of these materials were as follows (1922 figures in parentheses):—Hard rock, 194,339 tons (202,300); land pebble, 630,565 tons (512,777); other phosphate rock, 2,647 tons (4,217); acid phosphates, 42,156 tons (26,781).

Sulphur, Pyrites in 1923

The features of the sulphur industry in 1923 were the agreement between the American and Sicilian producers regulating the world's sulphur market and the entrance into the sulphur industry of a new producing property, the Hoskins Mound deposit in Brazoria County, Texas. The production of sulphur increased from 1,830,942 long tons in 1922 to 2,035,847 tons in 1923, and shipments increased from 1,343,624 long tons in 1922 to 1,618,841 tons in 1923. Both production and shipments reached new high levels in 1923 compared with previous records of 1,879,150 long tons production in 1921 and of 1,517,625 long tons shipment in 1920. The estimated value for 1923 is $26,000,000, compared with $22,000,000 for 1922, at approximately the same rate per ton.

Stocks, which amounted to nearly 2,500,000 long tons at the end of 1922, increased to nearly 2,900,000 tons at the end of 1923, practically 1.8 times the shipments in 1923, so that if production should cease entirely shipments from stocks could be maintained for nearly two

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years at the rate of 1923, which was the record high rate.

Exports of sulphur, or brimstone, in 1923 amounted to 472,525 long tons, valued at $7,105,260, compared with 485,664 tons in 1922, valued at $7,095,628, a decrease in quantity but an increase in value. Exports in 1922 were the highest ever made, and those for 1923 were exceeded only by those for 1922 and 1920.

The production of pyrites in the United States in 1923 was 181,628 long tons, valued at about $661,000, compared with 169,043 long tons, valued at $671,241, in 1922, an increase in quantity, but a decrease in value. Of the 181,628 tons produced, 170,997 tons were either sold or consumed by the producing companies. Pyrites was produced in five States in 1923, California, New York, Ohio, Virginia and Wisconsin. The combined production of California and Virginia was 170,300 long tons; New York produced 11,000 tons; Ohio, 138 tons; and Wisconsin, 190 tons. One Wisconsin mine was operated only five months in 1923, as the mill was destroyed by fire June 1.

Imports of pyrites in 1923, practically all from Spain, were 259,721 long tons, valued at $1,242,574, compared with 279,454 long tons in 1922, valued at $1,199,101. About 4,000 long tons reported by the Bureau of Foreign and Domestic Commerce as imports of sulphur from Spain should undoubtedly be reported as pyrites. The Bureau of Foreign and Domestic Commerce is investigating these imports, and the 4,000 tons will probably be added to the 259,721 tons given above as imports of pyrites.

Sicilian Sulphur Market

MESSINA, Feb. 25, 1924.

During 1923 selling arrangements were made between the American and Sicilian producers. The Canadian and American markets have been reversed entirely to the Americans and the other countries are divided as follows:—25 percent to the Consorzio and 75 percent to the American Corporation.

In Sicily the good qualities of raw sulphur testing 99.5 percent pure are getting scarce. The production during 1923 amounted to 206,238 tons of 1,000 kilos, against 137,640 tons in 1922. Total exports during 1923 were 221,766 tons, against 133,349 tons during 1922. Stocks at the end of December, 1923, were 245,201 tons, against 274,830 at the end of 1922.

The prices are established d'accord between the American Corporation and the Consorzio; that is to say a minimum price is fixed, below which none of the parties can sell.

Fertilizer Materials: Record of Prices

Nitrogenous Materials

Dried Blood

On December 10, 1879, the price was $2.37½ to $2.45 per unit; 1881, $3.75 to $3.85; 1891, $1.95 to $2.05; 1901, $2.30; 1911, $3.05; 1913, $2.95; March, 1920, $8.75.

	Per unit			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.75	$3.50	$4.80	$4.75
February	4.15	3.75	4.75	4.70
March	4.15	4.00	4.75	4.70
April	4.00	3.25	4.70	4.00
May	3.50	3.25	4.00	3.75
June	4.00	3.50	3.75	3.75
July	4.50	4.00	3.75	3.75
August	4.60	4.60	Nominal	
September	4.60	4.60	Nominal	
October	4.60	4.50	Nominal	
November	4.65	4.60	Nominal	
December	4.75	4.60	Nominal	
Year	4.75	3.25	4.80	3.75

Cottonseed Meal

(F.o.b. Southeastern shipping points)

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$33.00	$33.00	$44.00	$41.00
February	42.00	36.00	42.00	41.00
March	47.00	40.00	42.00	41.00
April	45.00	42.00	41.00	39.50
May	45.00	42.00	40.00	39.00
June	45.00	42.00	39.00	35.00
July	42.00	40.00	38.00	33.00
August	38.00	30.00	37.00	33.00
September	32.00	31.00	42.00	36.00
October	32.00	30.00	42.50	40.00
November	44.00	40.00	44.00	42.00
December	42.00	41.00	42.00	40.50
Year	47.00	30.00	44.00	33.00

Hoofmeal

On July 4, 1904, the price was $2.25 to $2.30 per unit; October 18, 1911, $2.60 to $2.70; 1913, $2.95; 1920, May, $7.50.

(F.o.b. Chicago.)

	Per unit			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.25	$2.00	$3.75	$3.50
February	2.25	2.00	3.75	3.50
March	2.50	2.25	3.75	3.50
April	2.25	2.00	3.80	3.75
May	2.25	2.00	3.00	2.75
June	2.25	2.00	3.00	2.75
July	3.25	2.75	3.15	2.75
August	3.25	2.75	3.10	2.75
September	3.25	3.25	3.15	3.00
October	3.50	3.25	3.25	3.00
November	3.50	3.25	3.00	2.90
December	3.75	3.50	3.00	2.75
Year	3.75	2.00	3.80	2.75

Fish Scrap, Dry

On January 6, 1902, the price was $24.50 to $25 per unit; October 18, 1911, $3.25 and 10c.; 1913, $3.10 and 10c.; 1917, November, $6.67½ and 10c.

	1922. Per unit		1923. Per unit	
	High.	Low.	High.	Low.
January	$3.25 & $0.10	$3.25 & $0.10		
February	3.50 & .10	3.25 & .10		
March	3.50 & .10	2.50 & .10		
April	3.75 & .10	3.75 & .10		
May	3.75 & .10	3.25 & .10		
June	3.60 & .10	3.25 & .10		
July	3.00 & .10	2.40 & .10		
August	4.15 & .10	3.85 & .10		
September	3.85 & .10	3.85 & .10		
October	4.00 & .10	3.85 & .10		
November	4.85 & .10	4.50 & .10		
December	Nominal	Nominal		
Year	3.75 & .10	2.40 & .10		
January			Nominal	Nominal
February			Nominal	Nominal
March			Nominal	Nominal
April			Nominal	Nominal
May			$4.00 & $0.10	$4.00 & $0.10
June			4.00 & .10	3.75 & .10
July			3.75 & .10	3.75 & .10
August			3.90 & .10	3.75 & .10
September			4.00 & .10	3.80 & .10
October			4.10 & .10	3.90 & .10
November			4.30 & .10	4.10 & .10
December			4.50 & .10	4.30 & .10
Year			4.50 & .10	3.75 & .10

Fish Scrap, Wet

On January 6, 1902, the price was $13 to $13.50 per unit; October 18, 1911, $2.70 and 50c.; 1919, January, $7 and 75c.

	1922. Per unit		1923. Per unit	
	High.	Low.	High.	Low.
January	$2.50 & $0.50	$2.50 & $0.50		
February	Nominal	Nominal		
March	Nominal	Nominal		
April	Nominal	Nominal		
May	2.75 & .40	2.75 & .40		
June	2.75 & .50	2.75 & .40		
July	3.25 & .50	2.75 & .50		
August	3.00 & .50	2.75 & .50		
September	3.00 & .50	3.00 & .50		
October	3.00 & .50	3.00 & .50		
November	3.50 & .50	3.50 & .50		
December	3.85 & .50	3.50 & .50		
Year	3.85 & .50	2.50 & .50		
January			$3.85 & $0.50	$3.85 & $0.50
February			3.85 & .50	3.85 & .50
March			4.00 & .50	3.85 & .50
April			3.85 & .50	3.80 & .50
May			3.80 & .50	3.50 & .50
June			3.55 & .50	3.50 & .50
July			3.50 & .50	2.75 & .50
August			3.00 & .50	2.75 & .50
September			3.00 & .50	2.80 & .50
October			3.75 & .50	2.80 & .50
November			3.95 & .50	3.75 & .50
December			3.95 & .50	3.95 & .50
Year			4.00 & .50	2.75 & .50

Nitrate of Soda

On September 23, 1874, the price was $2.12½ to $2.37½ per 100 pounds; October 18, 1881, $3.25; 1891, $2.15 to $2.20; 1901, $1.90 to $1.92½; 1911, $2.25 to $2.27½; 1913, $2.95; 1918, May, $5.50.

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.37½	$2.25	$2.60	$2.55
February	2.45	2.37½	2.60	2.60
March	2.80	2.45	2.70	2.62½
April	2.90	2.80	2.67½	2.65
May	2.80	2.60	2.60	2.55
June	2.70	2.50	2.52½	2.40
July	2.55	2.45	2.45	2.40
August	2.55	2.35	2.42½	2.40
September	2.40	2.35	2.45	2.42½
October	2.45	2.40	2.45	2.42½
November	2.47½	2.45	2.45	2.40
December	2.60	2.52½	2.53	2.50
Year	2.90	2.25	2.70	2.40

Sulphate of Ammonia

On March 5, 1873, the price was $7 per 100 pounds; October 18, 1881, $4.87½ to $5; 1891, $3 to $3.05; 1901, $2.77½ to $2.80; 1911, $3.20; 1913, $3.10; 1918, April, $7.85.

(Double bags, f.a.s., New York)

	Per hundredweight			
	1922.		1923.	
	H.	L.	H.	L.
January	$2.75	$2.55	$3.55	$3.50
February	3.00	2.75	Nominal	
March	3.25	3.00	Nominal	
April	3.65	3.50	Nominal	
May	3.50	3.25	3.65	3.55
June	3.50	3.25	3.60	3.55
July	3.50	3.40	3.55	3.35
August	3.40	3.30	3.50	3.25
September	3.65	3.50	3.45	3.20
October	3.65	3.50	3.45	3.10
November	3.65	3.55	3.25	2.90
December	3.60	3.50	3.00	2.75
Year	3.65	2.55	3.65	2.75

Tankage, Concentrated

(F.o.b. Chicago)

On September 4, 1889, the price was $2.27½ to $2.30 per unit; October 18, 1891, $1.75 to $1.80; 1901, $1.20; 1911, $2.70; 1913, $2.45; 1920, July, $7.25.

	Per unit			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.00	$2.75	$4.25	$3.75
February	3.50	3.00	3.75	3.50
March	4.00	3.75	3.75	3.50
April	3.50	3.25	3.75	2.50
May	2.50	2.25	2.75	2.50
June	2.75	2.50	2.75	2.50
July	2.75	2.50	2.75	2.50
August	4.00	3.50	2.75	2.50
September	3.50	3.00	3.00	2.75
October	3.50	3.25	4.00	3.75
November	3.50	3.25	4.00	3.75
December	4.25	4.00	3.75	3.00
Year	4.25	2.25	4.25	2.50

Tankage, Ground, 11 and 15 Percent

(F.o.b. Chicago)

	1922. Per unit		1923. Per unit	
	High.	Low.	High.	Low.
January	$4.00 & $0.10	$3.75 & $0.10		
February	3.75 & .10	3.75 & .10		
March	4.50 & .10	4.00 & .10		
April	3.50 & .10	2.75 & .10		
May	2.75 & .10	2.65 & .10		
June	3.90 & .10	2.65 & .10		
July	4.50 & .10	4.25 & .10		
August	4.50 & .10	4.50 & .10		
September	4.50 & .10	4.00 & .10		
October	4.50 & .10	4.25 & .10		
November	4.50 & .10	4.25 & .10		
December	5.00 & .10	4.50 & .10		
Year	5.00 & .10	2.65 & .10		
January			$5.00 & $0.10	$5.00 & $0.10
February			4.75 & .10	4.75 & .10
March			4.75 & .10	4.75 & .10
April			4.75 & .10	3.00 & .10
May			3.00 & .10	3.00 & .10
June			3.25 & .10	3.00 & .10
July			3.25 & .10	3.25 & .10
August			3.25 & .10	3.15 & .10
September			3.50 & .10	3.25 & .10
October			4.25 & .10	4.00 & .10
November			4.25 & .10	4.00 & .10
December			3.75 & .10	3.00 & .10
Year			5.00 & .10	3.00 & .10

Tankage, Unground, New York

	1922. Per unit		1923. Per unit	
	High.	Low.	High.	Low.
January	$3.25 & $0.10	$3.00 & $0.10		
February	3.50 & .10	3.25 & .10		
March	3.50 & .10	3.50 & .10		
April	3.50 & .10	2.75 & .10		
May	2.75 & .10	2.75 & .10		
June	3.50 & .10	2.75 & .10		
July	4.15 & .10	3.75 & .10		
August	4.40 & .10	4.25 & .10		
September	4.25 & .10	4.00 & .10		
October	4.25 & .10	4.00 & .10		
November	4.25 & .10	4.25 & .10		
December	4.25 & .10	4.25 & .10		
Year	4.40 & .10	2.75 & .10		
January			$4.25 & $0.10	$4.25 & $0.10
February			4.25 & .10	4.10 & .10
March			4.25 & .10	4.10 & .10
April			4.25 & .10	3.25 & .10
May			3.25 & .10	2.75 & .10
June			3.50 & .10	3.25 & .10
July			3.40 & .10	3.40 & .10
August			3.40 & .10	3.30 & .10
September			3.50 & .10	3.40 & .10
October			3.60 & .10	3.50 & .10

Garbage, Tankage, f.o.b. Chicago

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$4.25	$4.00	$6.50	$6.00
February	4.25	3.75	6.50	6.25
March	4.25	3.75	6.50	6.25
April	4.25	3.75	6.50	6.25
May	4.25	3.75	6.50	6.25
June	7.50	4.25	6.00	5.50
July	7.50	5.00	5.75	5.25
August	7.25	6.00	5.50	4.50
September	6.25	6.00	6.50	5.50
October	6.25	6.00	6.50	5.00
November	6.50	6.25	5.50	5.00
December	6.50	6.00	5.00	4.75
Year	7.50	3.75	6.50	4.50

Phosphates

Acid Phosphate

On January 7, 1885, the price was $12 to $15 per ton; October 18, 1891, $14.50 to $15; 1901, $9.60 to $10; 1911, $8 to $8.75; 1913, $7.20 to $8; 1920, June, $21.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$10.50	$10.00	$10.00	$9.00
February	10.00	9.50	10.00	8.50
March	9.50	8.50	10.00	8.25
April	8.50	8.00	9.50	7.75
May	8.50	8.00	9.00	7.75
June	8.50	8.00	8.50	7.75
July	9.00	8.50	8.50	7.75
August	9.00	8.50	8.50	7.50
September	8.50	8.00	8.50	7.50
October	8.00	7.50	8.50	7.50
November	10.00	9.50	8.50	7.50
December	10.00	9.50	8.25	7.50
Year	10.50	7.50	10.00	7.50

Phosphate Rock, Florida Land Pebble, 68 Percent

On June 8, 1881, the price (grade not specified) was $10 to $14 per ton; October 18, 1881, $9.50; 1891, $6.50 to $7.50; 1901, $7 to $7.50; 1911, $3.70 to $3.80; 1913, $3 to $3.25; 1920, July, $12.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$3.25	$3.25	$2.75	$2.50
February	3.25	3.25	3.00	2.50
March	3.25	3.25	3.00	3.00
April	3.25	3.25	3.00	3.00
May	3.25	3.25	3.00	3.00
June	3.25	3.25	3.00	3.00
July	3.25	3.25	3.25	3.00
August	3.25	3.25	3.25	3.25
September	3.25	3.25	3.25	3.25
October	3.25	2.75	3.25	3.25
November	3.25	2.75	3.25	3.25
December	2.75	2.50	3.25	3.25
Year	3.25	2.50	3.25	2.50

Bones, Raw, Ground

On July 18, 1880, the price was $28 per ton; October 18, 1881, $35 to $37; 1891, $25 to $28; 1901, $20 to $21; 1911, $28.50 to $30; 1913, $28 to $30; 1920, July, $62.50.

(F.o.b. Chicago)

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$31.00	$31.00	$36.00	$32.50
February	30.00	27.50	36.00	32.50
March	30.00	27.50	36.00	32.50
April	32.50	30.00	38.00	34.00
May	32.50	32.50	38.00	34.00
June	35.00	32.50	38.00	34.00
July	40.00	35.00	35.00	32.00
August	40.00	35.00	28.00	25.00
September	40.00	35.00	28.00	25.00
October	36.00	32.50	28.00	25.00
November	36.00	32.50	28.00	25.00
December	36.00	32.50	28.00	25.00
Year	40.00	27.50	38.00	25.00

Bones, Rough, Hard

On September 1, 1880, the price was $20 to $20.50 per ton; October 18, 1881, $25; 1891, $20 to $23; 1901, $19.50; 1911, $28.50 to $30; 1913, $22.50 to $24; 1920, August, $82.

(F.o.b. Chicago)

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$27.00	$25.00	$27.00	$25.00
February	27.00	25.00	27.00	25.00
March	27.00	25.00	27.00	25.00
April	27.00	25.00	27.00	25.00
May	27.00	25.00	27.00	25.00
June	27.00	25.00	27.00	25.00
July	30.00	27.00	27.00	25.00
August	30.00	27.00	25.00	24.00
September	30.00	27.00	25.00	24.00
October	27.50	25.00	25.00	24.00
November	27.00	25.00	25.00	24.00
December	27.00	25.00	25.00	24.00
Year	30.00	25.00	27.00	24.00

Bones, Soft, Steamed, Unground

On July 4, 1904, the price was $18 to $19 per ton; October 18, 1911, $21.50 to $22; 1913, $21.50 to $22; 1920, September, $40.

(F.o.b. Chicago

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$15.00	$13.00	$22.00	$20.00
February	15.00	10.00	22.00	20.00
March	18.00	12.00	22.00	20.00
April	18.00	12.00	21.00	18.00
May	18.00	14.00	21.00	18.00
June	18.00	14.00	21.00	18.00
July	22.00	18.00	21.00	18.00
August	22.00	18.00	20.00	17.00
September	22.00	18.00	20.00	17.00
October	22.00	20.00	20.00	17.00
November	22.00	20.00	20.00	17.00
December	22.00	20.00	20.00	17.00
Year	22.00	10.00	22.00	17.00

Bones, Ground, Steamed, f.o.b. Chicago

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$21.00	$21.00	$26.00	$24.00
February	22.50	21.00	26.00	24.00
March	30.00	25.00	26.00	25.00
April	25.00	22.00	25.00	23.00
May	25.00	22.00	25.00	23.00
June	30.00	22.00	25.00	23.00
July	30.00	27.00	25.00	23.00
August	30.00	27.00	24.00	22.00
September	30.00	27.00	24.00	22.00
October	30.00	27.00	24.00	21.00
November	30.00	27.00	24.00	21.00
December	27.00	24.00	24.00	22.00
Year	30.00	21.00	26.00	21.00

Potashes

Muriate, 80 to 85 Percent, Basis 80 Percent

On August 13, 1879, the price was $1.40 to $1.42 per unit; October 18, 1881, 73c. to 76c.; 1891, 74c. to 80c.; 1901, 76.25c. to 78.80c.; 1911, 85c. to 90c.; 1913, 80c.; 1918, January, $7.30.

	Per unit			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.75	$0.70	$35.55	33.75
February	.70	.70	35.55	33.75
March	.70	.70	35.55	33.75
April	.70	.70	35.55	33.75
May	*32.00	32.00	35.55	33.50
June	32.00	32.00	34.55	31.09½
July	32.95	32.95	31.09½	31.09½
August	32.95	32.95	31.09½	31.09½
September	32.95	32.95	31.09½	31.09½
October	Nominal		31.09½	31.09½
November	35.55	35.55	31.09½	31.09½
December	35.55	34.00	31.09½	31.09½
Year	35.55	32.00	35.55	31.09½

* Per ton.

Sulphate, 90 to 95 Percent, Basis 90 Percent

On October 3, 1888, the price was $2.25 to $2.35 per unit; October 18, 1891, 83c.; 1901, 85c.; 1911, 94c.; 1913, 94c.; 1918, January, $8.

	Per ton			
	1922.		1923.	
	H.	L.	H.	L.
January	$45.00	$45.00	$45.67	$43.50
February	45.00	44.50	45.67	43.50
March	45.00	45.00	45.67	43.50
April	45.00	45.00	45.67	43.50
May	41.10	41.10	45.67	43.50
June	41.10	41.10	43.67	39.30
July	42.35	42.35	39.30	39.30
August	42.35	42.35	39.30	39.30
September	42.35	42.35	39.30	39.30
October	Nominal		39.30	39.30
November	45.67	45.67	39.30	39.30
December	45.67	44.00	41.26½	41.26½
Year	45.67	41.10	45.67	39.30

Pyrites

Spanish, 48 to 50 Percent Sulphur

On January 2, 1905, the price was 10c. to 11c. per unit; October 18, 1911, 10c. to 10½c.; 1913, 10½c. to 11c.; 1917, December, 25c.

	Per unit			
	1922.		1923.	
	H.	L.	H.	L.
January	$0.13	$0.13	$0.11½	$0.11½
February	.11½	.11½	.11½	.11½
March	.11½	.11½	.11½	.11½
April	.11½	.11½	.11½	.11½
May	.11½	.11½	.11½	.11½
June	.11½	.11½	.11½	.11½
July	.11½	.11½	.11½	.11½
August	.11½	.11½	.11½	.11½
September	.11½	.11½	.11½	.11½
October	.11½	.11½	.11½	.11½
November	.11½	.11½	.11½	.11½
December	.11½	.11½	.11½	.11½
Year	.13	.11½	.11½	.11½

Phosphoric Acid by Volatilization

The production of phosphoric acid by the volatilization method has distinct advantages over the sulphuric acid method, according to W. H. Waggaman, of the Bureau of Soils. In a description of the process (*Ind. & Eng. Chem.*) this author points out that low-grade phosphates can be used; costly filtration and evaporation are obviated by using the Cottrell method for precipitation, and the cost of the thermal energy required should be less than the cost of chemical reagents necessary to effect the same results.

The fuel furnace has been shown to cause volatilization as efficient as the electric furnace, although radiation and heat losses are considerably less in the electric smelting. Such losses, however, can be considerably reduced.

The question of what temperature is best adapted for the volatilization, especially in the fuel furnace, is still only partially answered, since it is dependent upon other factors, such as the lime-silica ratio in the charge, the fineness of division and intimate contact of the reacting materials, the amount of reducing agent present, the time factor, and the type of furnace used. The first of these factors is equally important in both electric and fuel smelting.

Another important problem of commercial importance studied at the bureau is the determination of the proper P_2O_5 content or the residual slag for the most economic operation. There are a number of others which also offer fields for valuable research.

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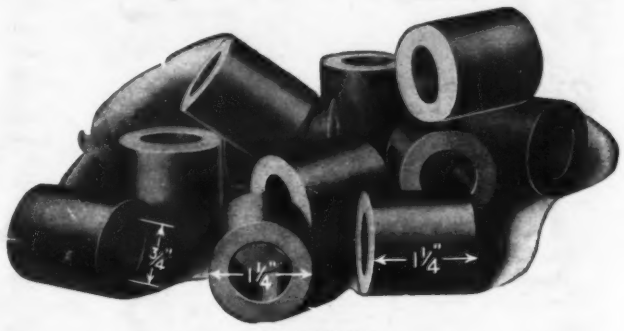

FIGURE 134
SMALL TUBE TOWER PACKING

Figure 134—SMALL TUBE TOWER PACKING

One size only shown on illustration—we make four standard sizes as listed below, and made either with a glazed, or an unglazed body as you prefer, in either case the rings being acid proof throughout the entire body. Also made in sizes to suit your needs.

5/8" long,	5/8" diameter, 3/8" hole.	All
3/4" long,	3/4" diameter, 3/8" hole.	Carried
1 " long,	1 " diameter, 5/8" hole.	in
1 1/4" long,	1 1/4" diameter, 3/4" hole.	Stock

Used as entire packing for small bore towers, or at top of large towers on large packing for more even distribution of the liquor over packing, etc. A good, reasonably priced, and efficient tower packing. Will stand considerable compression and the severe conditions encountered in chemical towers. Packed in barrels for L.C.L. shipment—or loose for carload shipments. Samples gladly furnished. State if wanted glazed or unglazed—quantity—size.

Figure 132—ACID PROOF PARTITION RINGS

Are made in three standard sizes.

Sizes	6"x6"	6"x4"	4"x3"
Weight each, pounds	8	5½	2½
Number to a cubic foot	8	12	36
Minimum carload	6,250	10,000	20,000
Number to a barrel	30	46	100
TOWERS:			
To a 24" x 24" section	45	70	175
To a 30" x 24" section	75	115	360
To a 36" x 24" section	110	160	415
To a 40" x 24" section	130	325	620

We also make these rings plain without partitions.

It is usual practice in packing a tower with these rings to use the 6" x 6" for the bottom ⅓, the 6" x 4" for the center ⅓, and the 4" x 3" for the top ⅓—the smaller packing being at the top where the gases occupy less room due to cooling and absorption. This packing will not clog or channel.

FIGURE 132
ACID PROOF PARTITION RINGS

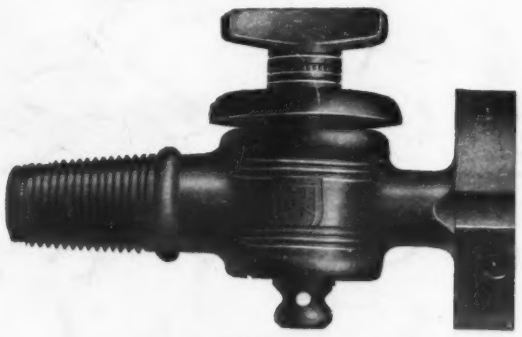

FIGURE 299
ACID PROOF FLANGED AND THREADED STRAIGHT-WAY COCK

Figure 299—ACID PROOF FLANGED and THREADED STRAIGHT-WAY COCK

ACID PROOF CHEMICAL STONEWARE FAUCETS are made in many designs, one of which is shown here.

The **threads** on our Chemical Stoneware faucets we wish to point out are **not** molded, but are cut on a machine, so that they are DEEP and SHARP and have a continuous threadway. Thus it is possible to screw the shank of these faucets into lead pipe, rubber hose, or wood, as the threads are sharp enough and strong enough to cut their own threadway.

The faucets are made and carried in stock in ¼", ½", ⅝", ¾", 1", 1¼", 1½", 1¾", 2", 2¼", 2½", 3", 3½", 4", 4½", 5", 5½", and 6" bores. When inquiring please state bore required, and design of faucet.

Figure 232—LARGE SIZE ONE PIECE TANK

TANKS can be made in most every conceivable shape and design to suit your needs and in small as well as very large sizes. Owing to this fact, we carry but little stock, as hardly two requirements are close enough to make it possible to settle on standards as to size and design. As it does not cost any more to make the tanks of the size and design you require, the fact that we do not have stock sizes does not make the cost higher, besides you get exactly what you need and not something that is near to it, as might be the case if there were stock or standard sizes and designs.

In order to quote you on your tank requirements, we ask that you give us the following data:

1. Inside length, depth and width.
2. Design of tank, right angle or rounded ends.
3. Outlets (if any), bore, design and location.
4. Faucets (if any), design and bore.
5. Number of tanks wanted.
6. Send sketch, if possible.

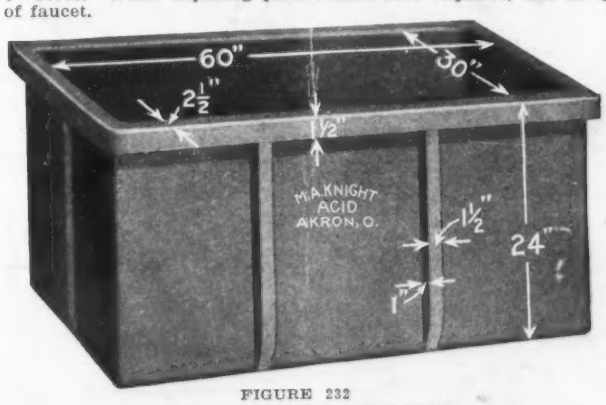

FIGURE 232
LARGE SIZE ONE PIECE TANK

"IT IS IN THE BODY ITSELF"

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